PHYSICS: MECHANICS

2018-2019 School Year

Teacher:

Mr. Moore – Room 213
Email – amoore@wssd.k12.pa.us

Textbook:

Giancoli: Physics – Principles with Applications 6th Edition

Course Description:

Physics I Mechanics focuses on the properties of motion. It is designed for those students planning to continue their education in science related fields. It is assumed these students possess a strong mathematical background and logical thinking skills. Course work is similar to the first semester of a college non-calculus physics course. Topics include: Kinematics, dynamics, forces and momentum. The topics to be covered in depth are statics and dynamics.

Required Materials:

- Textbook or Internet connected device for use outside of classroom.
- 3 Ring Binder with 5 subject dividers.
- Scientific Calculator (Does not need to graph, but it must have sin, cos, and tan functions).
- Pencil (You may use a pen for any notes, but all homework, quizzes, and tests must be completed in pencil).

Expectations of the Learner:

As the student in the classroom, you are expected to be on time for class. On time, means in your seat and ready to begin. Ready to begin means that any assignments that are due are out and you are prepared. Class will begin promptly with the ringing of the bell, and we will begin every day with an activity that will get our minds thinking about Physics. Use of cellphones will be at the sole discretion of the teacher!

Course Goals:

- The students will be able to develop, ask, and answer scientific questions through class assignments and laboratory experimentation.
- The students will be able to utilize the Scientific method in order to complete labs.
- Let's have PHUN!!!

Grading:

Daily Work and Homework	10 pts. each
Pop-Quizzes	15 pts. each
Mini Labs	15 pts. each
Formal Labs	40 pts. each
Quizzams	50 pts. each
Mid - Term	100 Pts
Final (Cumulative)	100 Pts

- All point values are subject to change based on the Teacher's discretion.

Homework:

Homework problems will be assigned every week on Monday, and will be due on the next Monday. Homework is a vital form of practice and therefore should be completed individually; however, if it becomes necessary for you to receive help from a classmate, please write their name at the end of your homework and what problems they helped you with.

➢ **Format:** Students will be expected to format their homework problems in a certain way. This allows for the students to receive credit for parts of the problem even if the final answer is not correct. The format for homework will be discussed when the first weekly assignment is assigned.

Daily Work:

During class every day there will be problems and activities that we are accomplishing. If at any point those activities are not completed in the classroom, then it is at the Teacher's discretion to assign them as, "Daily Work." This means that they will be handed in the next day and graded as part of your course grade.

Pop-Quizzes:

There will be periodic unannounced quizzes during the semester. These will be done at the start of a class.

Mini Labs:

Due to the need for scientific investigation in this course we will perform some labs that only require the student to answer questions based on their observations and perform some calculations.

Formal Labs:

We will do labs associated with the units that we are working on. There will be more than 8 labs during the course of the class; however, 8 of them will be selected to have a formal write up done on their content. These formal labs will be due on the second day after the experiment is completed (We finish a lab on Monday, the write up is due on Wednesday).

Quizzams:

These are end of unit tests; however, I do not like the word test, hence QUIZZAM.

Mid – Term:

A mid – term exam will be given that is cumulative for the material covered to that point in the course.

Final:

At the end of the course there will be a final exam. It will cover the entire scope of the class.

Course Requirements:

1. It is the student's responsibility to make up any work or assignments missed during an absence.
2. Missed exams or quizzes will be made up the day the student returns to school during class, unless previous arrangements were made with the teacher.
3. Make-up labs must be scheduled with the teacher. The lab must be conducted within 3 days of an absence.
4. Following any period of absence, the student must obtain missed notes and assignments. All assignments not turned in within a week will result in a **zero**.
5. Come prepared to class daily. *Bring your own pen or pencil, binder, calculator and assigned textbook.
6. Materials in the room are for learning; DO NOT abuse them. Laboratory equipment and demonstrations are ABSOLUTELY OFF LIMITS unless you are instructed by the teacher to use them for a class assignment.
7. Tardiness will be recorded. Refer to your student handbook for more details on consequences in regards to tardiness.
8. You must show **respect to all** who are present in our classroom!

Course Outline:

Week	Unit	Textbook Chapter
1 - 2	Intro to Physics	Chapter 1
3 - 5	One-Dimensional Linear Motion	Chapter 2
6 - 9	Two-Dimensional Motion / Vectors	Chapter 3
10 - 14	Force	Chapter 4
15 - 17	Circular Motion	Chapter 5
18	Mid Term	Cumulative
19 - 21	Gravitation	Chapter 5
22 - 24	Work, Power, and Energy	Chapter 6
25 - 27	Linear Momentum	Chapter 7
28 - 30	Rotational Motion	Chapter 8
31 - 32	Equilibrium	Chapter 9
33	Real Life Experiences	
34 - 35	Simple Harmonic Motion and Waves	Chapter 11
36	Final	Cumulative

*** This schedule is subject to change.

Mr. Moore,

I, ____ (please print full name), have read this document and understand the expectations surrounding your course. I will do my best to meet all expectations this semester.

If I should behave in any way that compromises the course expectations and/or the intended learning, I will accept the consequences explained in class and my student handbook.

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Student Signature   Date

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Mr. Moore,

I, ____ (please print full name), have read this document and understand the expectations surrounding your course. I will encourage my student to do his/her best to meet all expectations this semester.

Please contact me as necessary. My phone number is ________________________, and my

email address is ____ .

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Parent/Guardian Signature   Date