



Syllabus for Physics
Teacher: Michael Burkett

E-mail: michael.burkett@biloxischools.net

Class Shared Information: Google Classroom

Physics, a one-credit course, provides opportunities for students to develop and communicate an understanding of matter and energy through lab-based activities, integrated STEM activities, mathematical expressions, and concept exploration. Concepts covered in this course include kinematics, dynamics, energy, mechanical and electromagnetic waves, and electricity. Laboratory activities, uses of technology, effective communication of results, and research of contemporary scientific theories through various methods are integral components of this course. Science as inquiry is an integral part of the framework, placing emphasis on developing the ability to ask questions, observe, experiment, measure, problem solve, gather data, and communicate findings. To be successful in Physics, it is recommended that students have completed Algebra I, Geometry, and Algebra II (Integrated Math I, II, II), and be enrolled in an upper level math course.

Main areas of focus

- applying physics concepts to explain everyday situations
- using mathematics to describe physical events
- developing laboratory and graphing techniques to investigate physics concepts

Course Expectations: You are expected to

- actively engage and participate in the class everyday for 54 minutes.
- be a contributing and productive group member.
- submit only your own work.
- attend class regularly.
- ask good questions about material/concepts you do not fully understand.
- apply course concepts to laboratory experiments and vice versa.
- keep up with your physics formula card and bring it and a calculator to class daily.
- study and review notes daily in preparation for class and for tests.
- honestly complete tests to show your level of understanding and knowledge.
- do what you need to do outside of class in order to learn physics concepts.
- keep all class work throughout the term as your proof that the assignment was graded, checked and/or completed.
- take ownership and responsibility for your learning and for your work.

Course Supply List:

1. notebook/binder/laptop (It is my goal to make this a paperless-as-possible class.)
2. pen/pencil
3. scientific calculator in class daily (can use cell phone)

Grading Scale

A=90-100 B=80-89 C=70-79 D=65-69 F=below 64 I=Incomplete
Tests: 55% Daily grades: 35% Term exam: 10%

Grading follows the policies of Biloxi Public Schools. A mid-term progress report and a report card following the end of each term are issued. The student's current grades are available via Internet INOW (<https://268451.stiinformationnow.com/InformationNow>)

Tests: A test will be given during each major unit. Dates for tests will be posted on the board. Tests may have multiple choice or short answer questions (concepts and problems) or be lab-based.

Retesting: You may retest only once per nine weeks.

- Step 1: Once your test is returned to you, you will be given time to complete test corrections to show me that you understand what you missed and that you know the correct response. You do not have to come in for tutoring in this step unless you feel you need additional help. You must complete all parts of the correction process correctly in order to earn back points on your test.
- Step 2: If you are unsuccessful in correcting your test on your own, you will need to schedule time after school for reteaching and then for retesting.

Daily/Classwork/Homework: Classwork/homework is an integral part of this class. Daily work will consist of lab reports, practice problems, and homework which are all designed to help you learn some aspect of the unit. I do my best to not assign “busy work.”

Homework will mainly involve finishing work from class.

Classwork will consist of answering concept questions and working problems dealing with various physics formulas. Some of this work will be individual and some will be group-based. Not all classwork will be graded as much of it will be done for practice to prepare for tests and to learn different skills. On formula problems, you are expected to follow GUESS to show your work.

Labs will be a major component of this class. Most labs will have written directions for you to follow but some will be inquiry-based where you will have to create a procedure to determine the relationship or concept being studied. As all labs will be conducted in groups, you are expected to help your group with whatever needs to be done. You may be given time in class to work on lab reports, but it will usually take additional time at home in order to complete them. You are expected to complete the pre-lab portion of your report before the day of the lab so you know what to do. You will be given a few days after the lab to complete and submit your report online through Google Classroom. To make up a lab when you are absent, you will need to get the data from a classmate and discuss the lab with them in order to write your lab report and to answer any post-lab questions. The rubric for your lab report is in a separate document. There will be a group component of the lab grade worth 40-50 points and your individual lab reports will make up the other 50-60 points. I reserve the right to not use the rubric if I need to focus on specific areas of improvement. You may be given opportunities to improve your grade on a lab report.

Textbook: www.physicsclassroom.com

Term Exam: The term exam will include information from throughout the entire unit covered so far.

Late & Makeup Work: Work is due when it is due. Any late work turned in after the assignment has been returned to the other students will generally not be graded. This grade will remain blank until your test score can be entered for it. If you see that an assignment will not be completed on time, it is your responsibility to discuss this with me BEFORE the assignment is due as I have no problem working with you when complications arise. All district policies regarding missing work due to absences will be followed. Work assigned before an absence should be turned in when you return to school if it was due on the day you were absent. If you have been informed of a test prior to being absent, you are expected to take the test in class upon your return to school. Notes and other handouts will be available via Google Classroom.

Days Available for Tutoring: Tuesdays and Thursdays are set aside for tutoring. Please understand that I may not be available to help you if you wait until the day of to ask about tutoring or before the test to ask me about “everything” in that unit. If you want to come in for extra help, I expect you to have specific topics on which you need help and for that help to take priority over any extracurricular activities.

Contact information: It is easier to contact me by email (michael.burkett@biloxischools.net). Please do not contact me about work that has not been returned to you yet, as it will be returned in a timely manner with feedback.

COURSE SCHEDULE: Dates and times may change due to unforeseen circumstances.

- **Term 1: force, horizontal velocity and acceleration, circular motion, gravitation**
- **Term 2: free fall, projectile motion, energy, simple harmonic motion, and momentum**
- **Term 3: sound, light/special relativity/quantum mechanics, and lenses**
- **Term 4: electricity, magnetism, and nuclear physics**