

Honors Physics 2024-2025

Revision 8/1/2024

Instructor: Phillip Brewer, pbrewer@mcpss.com

Textbook resource:

[Openstax Physics](#)

About the course:

The goal in Honors Physics courses is to provide a college-ready introduction to an algebra-based physics education. Students coming out of the course should have a strong conceptual understanding of physics and well-developed skills in performing and analyzing laboratory experiments. They should also be able to apply their understanding to approach and solve problems that are essentially new to them. Lab work is an integral to the understanding of the concepts of this course.

The content for the course is based on six big ideas:

1. Objects and systems have properties such as mass and charge. Systems may have internal structure.
2. Fields existing in space can be used to explain interactions.
3. The interactions of an object with other objects can be described by forces.
4. Interactions between systems can result in changes in those systems.
5. Changes that occur because of interactions are constrained by conservation laws.
6. Waves can transfer energy and momentum from one location to another without the permanent transfer of mass.

Schoology:

This course is offered via the Schoology online learning platform.

OneNote:

Course notes and materials are available via OneNote. A link to this course is available in Schoology. Be sure to gain access to this resource ASAP.

Khan Academy:

Login and join the course on Khan Academy

Link, class code:

[Period 2 – Honors Physics](#), VHRR3UH2

[Period 3 – Honors Physics](#), N9CT6R94

[Period 5 – Honors Physics](#), 7STKY6B8

Evaluation:

Students will receive grades on problem sets, quizzes, laboratory work, projects, and exams. Exams are typically worth 100 points and consist of problems like problem sets worked in class. Problem sets and quizzes will consist of problems from the textbook, supplements, online, and web-based activities. Laboratory work is student centered and inquiry based. Grades will be determined by taking the number of points a student has earned and dividing it by the total number of points for each category. Each category makes up a percentage of the student's quarter average. Categories include Tests (60%) and Work (40%).

Laboratory Activities and Problem Sets:

Lab work is essential for understanding physics. Labs may take several in-class days to finish, and students may have to work outside of class as well. Every major unit will have an inquiry-based lab, and inquiry-based labs will make up no less than half of the laboratory work. Problem sets are integral to your success. If completed properly they will enhance your understanding of the material and increase your success in physics. Problem sets vary in point value. Problem sets are determined by how completely and accurately you do the assignment. All answers must be written clearly and show applicable work. If you do not show the applicable work, you will not receive any credit - even if you have the correct final answer.

Policy for Late and Missing Assignments

All missing grades receive a score of zero. When missing assignments are made up and graded, the score will be replaced with the make-up score. It is the student's responsibility to notify the instructor when a missing grade is submitted / completed via email or Schoology messaging, and to check the criteria of the policy for late and missing assignments beforehand. Make-up sessions for quizzes and tests should be arranged via email. Include the following information to request a make-up session and send all requests to pbrewer@mcpss.com

1. Name of course
2. Name of assessment
3. Documentation of excused absence

Unexcused late assignments (*Minor and Major*) will receive a 50% deduction if they are turned in within 2 days from the assigned due date. All other unexcused late work receives a score of zero.

Excuses (parent, doctor notes, etc.) for late assignments (*Minor and Major*) should be turned into the office and sent through a documented parent or guardian email account contact to pbrewer@mcpss.com. All excused late work is due within three days of the assigned due date for credit, excluding extensions for long-term absence from class. Students that do not plan for makeup as specified will be ineligible for make-up opportunities in this class.

Complete the Syllabus Contract below and submit a digital copy to Schoology. This document is required to earn grades in this course.

Student Name: _____

I/we have read the above syllabus and understand the expectations of the class. **A parent and I have signed this syllabus as a statement of accepting the challenges and responsibilities of this class to achieve my greatest academic potential.**

Student signature: _____ Date: _____

Parent/Guardian signature: _____ Date: _____