

PREP Physics Class Information and Syllabus: 2020-2021

Mrs. Mathis-Mason, E131

Conference period: 1st

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Class Information

Physics is a science that deals with the properties, changes, and interactions of matter and energy in the **PHYSICAL** world. The course covers kinematics, thermodynamics, wave behavior, sound, light, optics, static charges, electric current, magnetism, atomic structure and nuclear physics. This class is designed to meet the level of rigor necessary to prepare students for post-secondary endeavors, as outlined in The Westside Way for requirements to graduate on the *Recommended Degree Plan*. You are expected to be engaged with the coursework, exude effort in accordance with the level of this class, and seek help as soon as you encounter any challenging work throughout the course.

Materials Needed to Be Successful:

- Textbook: McGraw-Hill Physics Principles & Problems
 - ❖ Can be accessed from the HUB under “Digital Resources”
- Scientific Calculator, need every day (if buying, preferably NO Casio models!)
 - ❖ You must download Wabbit (online calculator) on the first day of school.
 - ❖ If you prefer a physical one please keep a TI-83 graphing calculator or higher handy for your use.
 - ❖ As a cost-effective alternative, the TI-30 is also available at most stores for \$12 (i.e. – Target, Walmart, etc.) and will allow the student to perform all of the calculations necessary for this course.
 - ❖ Cell phones, tablets, or other personal digital devices are not acceptable for use as a ‘calculator’.
- Notebook/paper for notetaking and calculations (OneNote Digital Notebook is provided to you by the district)
- Ruler and plastic protractor
- Scratch paper, Pens, pencils and erasers
- Other supplies necessary for projects will be announced as the year proceeds

Grading and Related Policies:

- **70% Major Grades (Tests and Projects)**
- **30% Minor Grades**
 - Class work/flex work/home work, weighted x1
 - Labs & quizzes, weighted x2
 - “Check” grades (*see policy below*)

Tests: Since Major grades are 70% of your class average, your six weeks grade will strongly reflect how you perform on tests. Notice for tests will always be posted at least a week in advance.

Test Re-Takes: Any student scoring **79 and below** on a test may attend the test retake; the maximum grade that will be entered in the gradebook for a retake is an 80 (*per WHS campus policy*). There are no retakes offered for projects. Dates, times, prerequisites and location (in-person class) for test retakes will be announced during or Microsoft TEAMS meetings.

Classwork / Flex work /Homework: Assignments may be graded based on the number of questions you get correct (traditional grading), or as a check grade (completion grading). You may not know in advance what type of grade will be assigned so always complete all assignments to the best of your ability.

The following point values are assigned for **Check Grades:**

- ❖ (100 %; Assignment is complete, with a high degree of accuracy)
- ❖ (90%; Assignment is mostly complete, with a high degree of accuracy)
- ❖ (80%; Assignment is mostly complete, with some level of accuracy)
- ❖ (70%; Assignment is incomplete and/or shows little accuracy)
- ❖ (60%; Assignment is mostly incomplete and/or lacks accuracy)

Late Work: Assignments have due dates and each assignment is planned with a specific timeline in mind to help you to acquire the learning necessary to demonstrate mastery on assessments. It is important that you exert deliberate effort to stay on track with the due dates for your work. **As established by our campus, deadlines for daily assignments is at 11:59 pm. Late work will only be accepted before answers have been posted and/or discussed by the teacher online and will receive a 10 point deduction per day from the deadline. Projects cannot be submitted late due to the strict end of the six weeks grade submission deadlines established by the district.**

Make-up Work: It is very helpful to correspond with me via email or MS-TEAMS chat if/when you know that you will be absent. To get caught up on your own, find the appropriate day(s) that you missed on The Hub to review the recorded live meeting and any other posted activities. You are allowed the same number of days missed to turn in makeup work. **Missed tests must be made up before the answers are unlocked;** if you fail to meet this requirement, you must follow the appropriate steps for retakes.

My Office hours and Helpful Websites:

- ❖ Office hours: Every Day 12:05 – 1:05 pm (use this time for additional support from me).
- ❖ Always check the HUB for information that I regularly post.
- ❖ www.physicsclassroom.com/class is a very helpful website with tutorials on a variety of physics topics that we will be learning throughout the year.

(Virtual) Classroom Expectations:

- Participate in each of the 30 minute live sessions to have a smooth learning experience, avoiding absences & tardies.
- Be courteous! Use the raise your hand feature to ask questions during TEAMS instruction.
- Effort is commendable! Always give your best effort no matter what....it matters to me!
- Be present! Ask questions during the live sessions and take advantage of the flex time following each class meeting. One on one tutorials are available by appointment during daily office hours from 12:05 – 1:00 pm, just send me a message in TEAMS ☺

Physics Scope & Sequence (subject to change as necessary)

Grading Period	Content/Major Topic
1 st Six Weeks (30%)	<ul style="list-style-type: none">▪ 1-D Kinematics (<i>Ch. 2 & 3</i>)▪ Vectors and 2-D Kinematics (<i>Ch. 5, 6 & 8</i>)▪ Project
2 nd Six Weeks (30%)	<ul style="list-style-type: none">▪ Gravitational Force (<i>Ch. 7</i>)▪ Forces, Free-Body Diagrams & Laws of Motion (<i>Ch. 4</i>)▪ Project
3 rd Six Weeks (30%)	<ul style="list-style-type: none">▪ Energy, Work & Power (<i>Ch. 10 & 11</i>)▪ Momentum & Impulse (<i>Ch. 9</i>)▪ Project <p style="text-align: right;">(Semester 1 Final Exam: 10%)</p>
4 th Six Weeks	<ul style="list-style-type: none">▪ Thermodynamics (<i>Ch. 12 & 13</i>)▪ Vibrations, Wave Properties & Behaviors (<i>Ch. 14</i>)▪ Project
5 th Six Weeks	<ul style="list-style-type: none">▪ Sound (<i>Ch. 15</i>)▪ Electromagnetic Waves & Optics (<i>Ch. 16, 17, 18 & 19</i>)▪ Project
6 th Six Weeks	<ul style="list-style-type: none">▪ Electric and Magnetic Forces (EMF) (<i>Ch. 20 & 21</i>)▪ Circuits (<i>Ch. 22, 23, 24, 25 & 26</i>)▪ Nuclear physics (<i>Ch. 30</i>)▪ Project