

**Utica High School
Physics**



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Office Hours: Mornings before school 6:45 – 7:15 in room 206

Course Description: Physics is intended for students with an interest in the physical world and a college oriented path. Physics explores kinematics, dynamics, energy, waves, light, electricity, and magnetism. There is a strong emphasis on problem solving, laboratory work and analysis.

Materials needed: Students MUST have all materials, including iPads, in class every day. Students must have a scientific calculator, a binder and paper with sections for notes, labs, and homework/classwork, and a pencil or pen. Classwork and homework may only be completed in black or blue ink or pencil.

Grading Scale:

- 90 – 100 = A
- 80 – 89 = B
- 70 – 79 = C
- 60 – 69 = D
- 0 – 59 = F

Grade Weights:

- Tests/Lab Reports – 55%
- Quizzes – 15%
- Labs/Homework 30%

Major Course Projects and Instructional Activities:

Tests: Test will be given at the end of a unit and represent student knowledge for the topic. There will be 3 or 4 test given per 9 week period. Major laboratory experience will include a written lab report that represents students understanding of the lab and the data collected during the lab.

Quizzes: Quizzes are given frequently over the course content. They often fall in the middle of a unit to check for student understanding.

Daily Classwork, Labs, and Homework: Short assignments done in class and daily homework assignments completed outside of class.

At the end of the 1st 9-weeks, the 9 weeks average will count towards 80% of the grade, and the quarterly exams counting for the remaining 20%. The average of four 9-weeks grades will count for 80% of the final course grade and the quarterly exam given at the end of each 9 weeks will count for the remaining 20% of the final grade.

Denial of Credit Policy for Full-Year Course:

DENIAL OF CREDIT due to absence

Any student who accrues non-professional absences in excess of four (4) days in a nine week period will be subject to receive zeroes on assignments for every additional day of non-professional absence for the remainder of the 9 weeks for each class that this takes place. Each new nine weeks every student will begin with a clean slate with regard to period attendance. Denial of credits can be appealed in writing only to the building principal.

Test Retakes

Students may retake tests for a maximum score of 80%. Retake will be done during study hall, before/after school, or academic assist. You may only retake one exam per unit of study.

Class Participation

What you put into this class will be what you get out. Active participation is essential in Physics. This class is not meant to be observation. You will be given many opportunities to participate in class discussions, activities, and labs. Your grade will reflect poor participation. Remember, poor participation includes not paying attention to discussions, lectures, or instructions; sleeping; talking; and being generally disruptive.

Classroom Policies:

- ◆ **Everyone is expected to be in their seats preparing to start class before the tardy bell rings.** When the bell rings, students should complete daily bell work in their folders. Homework and other assignments will be due shortly after the bell.
- ◆ **Mutual respect is required at all times.** Everyone's opinions and contributions in class are welcomed. When someone else is talking you must be courteous.
- ◆ **Come to class prepared with all your materials.** You will need to bring your note- book , iPad, and calculator to class everyday.
- ◆ **All students will wait for specific instructions before entering the lab.** No student should use the sinks, gas jets, safety shower or emergency eye wash unless you have permission from the instructor.
- ◆ **Safety rules must be followed at ALL times.** The rules are in place to ensure that every student in the room is as safe as possible in all situations.

Absences/Missed Assignments, Quizzes, Tests:

It is your responsibility to make up any missed work not exceeding one day more than the period of absence. Check the class website. Come see me when you miss a day. I will point you towards anything you missed. If there were any additional notes that were not part of a handout, you are responsible for getting them from a partner. You will also need to get with someone in the class who can give you an overview of the class you missed. You are responsible for keeping up with these things during non-instruction time. IF YOU MISS A DAY, IT IS YOUR RESPONSIBILITY TO GET CAUGHT UP!

If you are absent for a quiz or test day, you are expected to take the test/quiz on the day you return to class. Be prepared.

The majority of the work in this course is cumulative. Therefore, keeping up with **your** work will help to insure **your** success.

Recommended/Required Readings: Students are encouraged and may be required to read articles from current science journals and magazines.

Physics Syllabus

1st 9-Weeks:

- Review calculations and safety procedures Chapter 1
- Units, measurement, and scientific method Chapter 1
- Motion- Graph interpretations Chapter 2
- Mechanical Equilibrium Chapter 2
- Inertia and linear motion
- Projectile Chapter 3,4

2nd 9-Weeks:

- Force Chapter 5,10
- Circular Motion Chapter 6, 7, 8
- Energy Chapter 9
- Linear Momentum Chapter 24

3rd 9-Weeks:

- Wave Properties Chapter 25,
- Sound, light, color (waves) Chapter 26, 27, 28
- Reflection and Refraction Chapter 29
- Lenses Chapter 30, 31
- Electrostatics Chapter 32

4th 9-Weeks:

- Electric fields and Potential Chapter 33
- Electric current and circuits Chapter 34, 35
- Magnetism Chapter 36
- Nuclear Energy Chapter 40