



Physics

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Office hours: Mondays and Wednesdays 2-3 pm, or by appointment

New Fairfield High School

Mission: New Fairfield High School strives to provide a safe educational environment in which all students acquire the knowledge and skills to become lifelong learners and responsible citizens within a diverse society and changing world.

Course overview:

This course includes the study of fundamental physics concepts, including the laws of motion, forces, work and energy, electricity and magnetism, waves (including light and sound), optics, and (time permitting) touches on nuclear physics. Students will practice problem solving, including application of math skills, in learning and demonstrating mastery of these concepts. These concepts and skills will enhance the student's ability to make sound decisions about issues in their lives as individuals and citizens, and will help prepare them for their careers after high school.

Grading criteria:

Each assignment will be evaluated using a point system. Each grade is found by dividing the total number of points earned by the student by the total number of points possible. The grade will be weighted according to the following:

- **Objective Assessment: 20%**
 - Includes homework, quizzes, short-answer exam sections and scientific reading assignments
- **Open Ended and Problem Solving Assessment: 40%**
 - Includes open-ended and essay exam sections, research papers and presentations
- **Laboratory Assessment: 40%**
 - Includes data analysis, laboratory reports and laboratory notebook

Notes:

- **Students are responsible for beginning all assignments early enough to avoid computer problems.**
- *Comprehensive Exams* will be announced at least 3 days in advance and will include a short-answer section, a problem-solving section and/or an open-ended/essay section. Each section will be weighted according to the above grading policy. Practice questions will be available prior to the exam.
- *Homework* is due each class day and students are expected to complete each assignment.

- *Quizzes* are given to students on a periodic basis to assess their progress on topics prior to exams. They are not always announced in advance. Students have the opportunity and are encouraged to retake quizzes within 2 weeks of the original quiz date. Only one retake of each quiz is permitted. The higher of the two quiz grades will stand.
- *Laboratory Reports* should be written according to the “Writing Your Lab Reports” guide handed out at the beginning of the year. Reports will be graded using the New Fairfield Science Department Grading Rubric.
- *Laboratory Notebooks* should be maintained by each student according to the “Keeping a Laboratory Notebook” handout. The notebook itself should be a composition notebook with gridlines for graphing data. Students are responsible for bringing their laboratory notebooks to class each lab day and any other day as requested by the teacher. A 5 point deduction will be taken from the corresponding laboratory report for students who must leave the lab to get their notebook. They will be collected and graded once each quarter.
- *Scientific Reading Assignments*, to which students are asked to respond with a scientific abstract according to the format provided, will be assigned each 8-day cycle.
- *Challenge Projects* are offered once or twice per quarter, and are completed by student teams. They usually involve a design and building performance task, and the grade for the project is based partially on the performance and partially on a report describing the design process, outcome, and analysis of the outcome with improvement recommendations.

Required materials:

- **Physics notebook**-A three-ring binder just for physics.
- **A calculator**- Scientific or graphing-**EVERY DAY**.
- **A pencil and pen**. Notes can be taken in pen, but pencil is required for doing problems, worksheets and exams.
- **A Composition notebook** dedicated to physics lab

Make-up work: YOUR RESPONSIBILITY

- Make-up work due to excused absences must be turned in within five school days of your return to school. Students are responsible for scheduling a time with me to make up missed laboratory activities, quizzes or exams. If a student misses a day between a laboratory activity and the report due date, the report is still due on time. Students are responsible, in the event of extenuating circumstances (such as an extended absence due to illness), to discuss how to make up work with me.
- Other than in the case of legal absences, late homework is not accepted for a grade. Students who are absent have 1-2 days to complete and hand in the missing homework. The lowest two homework scores will be dropped each quarter.

- Other than in the case of legal absences, late lab reports will be docked 10 points. *Please note that, according to the New Fairfield Science Department Grading Rubric, most labs are worth 23 points, so a 10 point penalty amounts to a 43% deduction.*
- In the event of an absence, copy any missed notes from a classmate or see me for extra help.
- **Make an appointment with me right away for extra help or exam make-ups. I am here to help you and have reserved two days after school to provide extra help. I am also available during open (PREP) periods. My schedule is posted outside the Science Department Office. Please take advantage of it.**

Leaving the classroom

Passes will be allowed for bathroom only at an appropriate time. You must ask me directly and have me sign your pass book. Abuse of the pass will result in loss of privileges for one week for the first offense and two weeks for the second offense.

Expectations of an active learner:

An active learner

- attends every class and on time
- comes prepared daily with all required materials
- takes class notes
- participates in class discussions
- **SEEKS EXTRA HELP WHEN NECESSARY**
- uses the ten-minute break appropriately to take care of personal needs
- adheres to the make-up policy