

# Physics

Mrs. Nuño

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Text: **Conceptual Physics**, 10<sup>th</sup> ed  
by Paul G. Hewitt

## Course Description

- This is a project- and laboratory-based course where you will be allowed to generate knowledge about physics with your peers.
- Your teacher will be a guide for the journey, a facilitator, an events planner, and occasionally a source of information.
- Other sources of information will be the textbook, charts and diagrams, videos, you, and many internet sources selected by the guide and by yourselves.
- Always remember, you are the learner here! You are the one who needs to actively acquire knowledge.

### Semester 1

- Science of Physics
- Mechanics
- Properties of Matter
- Heat

### Semester 2

- Sound
- Electricity and Magnetism
- Light
- Atomic and Nuclear Physics
- Relativity

## Goals and Objectives

- Conscientiously become more scientifically literate in matters related to the physical world as you develop an awareness of the diversity and complexity of physical processes and interrelationships.
- Actively ask, find, determine answers related to physics and the physical world
- Carefully describe, explain, and predict consequences based on knowledge of the physical world by developing an understanding of various scientific methods and how they are used and how scientific hypotheses, laws, principles, and theories are formulated and tested.
- Diligently use mathematical concepts to develop an understanding of measurement accuracy and precision.
- Critically analyze articles about physics in the popular press
- Accurately organize, analyze, and communicate information about the physical world
- Perceptively discuss issues related to human interactions with the physical world
- Diligently develop an understanding of chemical and physical processes that occur within, affect, or are affected by living organisms.
- Enthusiastically develop an awareness of the history of science and the men and women who have contributed to the advancement of knowledge about physics.

Physics Syllabus



## Requirements

### COME TO CLASS PREPARED:

- Read the text assignments
- Prepare and Study Vocabulary Lists
- Prepare Outlines for Each Chapter
- **TURN IN ASSIGNMENTS ON TIME** (This means organize your time!)
- Bring Text to Class
- Bring a Pen or Pencil, Notebook, and Lab Notebook to class
- Bring colored pens or pencils and a metric ruler
- **TURN IN ASSIGNMENTS ON TIME** (did I mention this?)
- **Late assignments are NOT accepted!**
- **If you are ill, your work is due the DAY you get back!**
- **Students are expected to treat each other with respect in both words and actions. Inappropriate language and behavior is NOT tolerated!**
- **Students may NOT eat in the classroom but may drink WATER.**

### Tests

- **100 points each**
- 4—6 per semester
- Multiple choice, short answer, problem-solving, graphing
- **NO DROPPED TESTS**
- **If you are ill on the day of the test, you must make arrangements to make up the test within 3 days of coming back to school!**

### Projects

- **100 points each**
- In Class Preparation
- Group and Individual
- Involve Library and Internet Research
- Turned-in via email
- PowerPoint/Web Pages/Word or other presentation format
- Presented In Class and/or Viewed on the Web
- **Reflection Essay**

### Quizzes

- **5~25 points each**
- Terms, concepts, problems
- **MAY BE UNANNOUNCED!!!!**
- **Quizzes may NOT be made up!**

### Labs

- **25~100 points each**
- Observations, Data Gathering, Data Organizing, Graphing
- Lab Simulations using Exploration of Physics Software
- Write-up in Lab Notebook

### Homework

- **10 points per chapter**
- One-Step Calculations, Exercises, and Problems

## Semester Final: 20 percent of the semester grade

- Science Comprehension:
  - Read and interpret information related to physics
- Science Content:
  - Similar to chapter tests
- Data Analysis:
  - Organizing, graphing, and interpreting data related to physics
- Critical Thinking:
  - Application of physics content to decision-making and data analysis



- **Grading Scale: Standard Scale used school-wide: see page 6 of student manual.**
  - **Grades are NOT rounded!**
- **Extra Credit:**
  - **Extra Reading Assignment is offered over Christmas Break**
  - **An Extra Credit Web Project is offered over Easter Break**
  - **THESE ARE THE ONLY EXTRA CREDIT ASSIGNMENTS FOR THE YEAR**
- **Projects are flexible in DESIGN, not in DUE DATE**
  - **Turn in all assignments on time.....**
  - **Have I mentioned this?**
- **Late assignments are NOT accepted!**
- **NO DROPPED TESTS**
- **Quizzes May Be Unannounced...**
  - **Come to Class Prepared....**
  - **Quizzes may not be made up!**
  
- **Extended Time Accommodations:**
  - It is the responsibility of the student to notify the teacher one day in advance of the need for extended time on a test or quiz, and it is the responsibility of the teacher to arrange for the extended time so that it does not impact other classes during the day.
- **Protocol for Addressing Student and Parent Concerns:**
  - Students and parents are requested to speak first to the teacher regarding all issues of concern including grade challenges, and other matters related to classroom conduct, and evaluation, at an appropriate time. If, after addressing the matter directly with the teacher, the student or parent needs further help addressing the issue, he or she should proceed to the grade level academic advisor who will bring the parties together to satisfactorily resolve the issue. Students should be empowered by this process - and know that they are their own best advocates.
- **Senior Waiver Policy:**
  - Second semester seniors who have achieved an average of 92.5 may waive their second semester final exams in disciplines that allow such waivers. Not all departments allow waivers; however, decisions must be made with department consensus.
- **Cell Phone Policy:**
  - Pagers and cell phones must be turned off when students are in the classroom or any building on campus. If a cell phone or beeper goes off during class, it will be taken from the student and given to the Dean of Students until the end of the day. In addition, the student will serve a detention. A student's continued abuse of her the cell phone may result in more serious consequences.
- **Absences and Tardies**
  - You are considered tardy if you are NOT in your seat when the bell rings. You will be marked tardy if you enter class within the 1st 10 minutes of class. If you arrive after the 1st 10 minutes you will be sent to get a READMIT and will be considered ABSENT
- **Academic Integrity:**
  - All work (homework, quizzes, tests, papers, projects, labs, etc.) must be your own.
  - Cheating includes, but is not limited to
    - submitting work copied from a friend or an outside source (without attribution)
    - giving work to a friend or giving/receiving excessive assistance from someone
    - Accepting or giving help during a test or quiz.
    - Using a calculator or notes without expressed permission of the teacher
    - Using notes stored on a calculator with expressed permission of the teacher
  - Plagiarism, a form of cheating, involves presenting someone else's ideas or words, whether deliberate or inadvertent, without giving credit!

