

**Henry County High School****Physics Course Syllabus**

**Instructor:** Amanda K. Lunsford  
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**School Phone:** 770-957-3943

**Room:** 216  
**School Web Page:** www.henry.k12.ga.us/hchs  
**Text:** Conceptual Physics; Pearson/Prentice Hall

**Course Description:** Physics is a physical science laboratory course describing the physical laws governing the universe. The course involves a description of various types of motion, forces, and energy, as well as a host of various wave mechanics concepts, such as light, sound, and electromagnetic phenomena.

**Course Objectives/Standards\*:**

- SP1. Students will analyze the relationships between force, mass, gravity, and the motion of objects.  
SP2. Students will evaluate the significance of energy in understanding the structure of matter and the universe.  
SP3. Students will evaluate the forms and transformations of energy.  
SP4. Students will analyze the properties and applications of waves.  
SP5. Students will evaluate relationships between electrical and magnetic forces.  
SP6. The student will describe the corrections to Newtonian physics given by quantum mechanics and relativity when matter is very small, moving fast compared to the speed of light, or very large.

*\* For more information, see the Georgia Performance Standards at [www.georgiastandards.org/science.asp](http://www.georgiastandards.org/science.asp)*

**Major Topics of Study:** *(Subject to change)*

*1<sup>st</sup> Semester – SP1, SP2, SP3*

**Nature of Science**

- Scientific Method and Inquiry
- Experimental Design
- Lab Safety
- Mathematical Skills/Graphing
- Measurement
- Accuracy and Precision
- History and Significance of Physics

**Mechanics**

- Motion in One Dimension
- Two-Dimensional Motion and Vectors
- Forces and the Laws of Motion
- Work, Energy, and Power
- Momentum and Collisions
- Rotational Motion and the Law of Gravity

*2<sup>nd</sup> Semester – SP4, SP5, SP6*

**Waves**

- Mechanical Waves and Sound
- Electromagnetic Waves/EMR Spectrum
- Light
- Optics

**Electricity and Magnetism**

- Static Charge and Electric Force
- Electric Field and Potential
- Circuits and Resistance
- Magnetism
- Motors and Generators

**Modern Physics**

- Relativity
- Particle/Wave Duality
- Quantum Mechanics

**Materials Needed:**

- 3-ring binder with paper
- Pen and pencils
- Dividers
- Scientific Calculator (Graphing is OK, but not necessary)
- Ruler (with centimeters/millimeters)

**Grading Policy:** The final grade is made up of 85% Coursework and 15% Final Exam. Coursework is broken down as follows:

Tests & Projects	40%
Quizzes/Laboratory Reports	35%
<u>Practice (Homework/Classwork)</u>	<u>25%</u>
Total 18 week Grade = 100%*	

*Course Grade	85%
<u>Final Exam</u>	<u>15%</u>
Total Semester Grade	100%

**Contacting the Teacher:** Email (amanda.lunsford@henry.k12.ga.us) is a great way to keep up with your child's progress and is the best way to contact me. You may also call the school and leave me a voice mail. We can set up phone and face-to-face conferences as well.

**Class Site:** To visit the class website, go to the HCHS site ([www.henry.k12.ga.us/hchs](http://www.henry.k12.ga.us/hchs)), click Teachers, and find my name on the list. Class news and announcements will be posted here, and you can also find the course schedule and links to assignments and class notes.

**Late and Make-up Assignments:** You are encouraged to make up missing work. As per the Henry County Schools Student Handbook, it is the student's and parent's responsibility, not the teacher's, to make arrangements for make-up work. Students will have three days or the same number of days of the absence to submit missed assignments before the late penalty is assessed. A 20% penalty will be assessed on late assignments. Tests can be retaken, however, lab activities cannot be made up due to setup of materials; therefore, an alternative assignment will be given with missed lab activities and graded to replace the missing lab grade.

I am available in my room most mornings by 7:30 and most afternoons until 3:45 or later. Please schedule your makeup tests or quizzes for one of these times at least 24 hours in advance and check to make sure I will be available.

**Student Expectations:** Students are expected to abide by the Code of Conduct in the Henry County Schools Student Handbook (pages 13-27). Specifically:

- Be respectful to adults, your peers, and yourself.
- Come to class prepared with all required materials and remain engaged in class activities.
- The Henry County High School tardy policy, dress code, and electronics policy will be strictly enforced. These are viewable on the school website under the "Information" tab.
- Follow all lab safety rules and guidelines.
- Besides a capped bottle of water, no food or drinks are allowed unless you have documentation on file of a specific need. During labs, drinking water will not be allowed in the classroom.

Consequences may include, but are not limited to: Warning (verbal or nonverbal), Seat Change, Call/Email to the Parent, Parent Conferences, Time Out in Another Teacher's Classroom, Morning/Afternoon Detention, and Office Referral.

**Cheating:** Cheating will not be tolerated. Any student that is caught cheating will receive a grade of zero for that assignment and their parents will be notified. Cheating includes but is not limited to cheat sheets, copying another student's paper, allowing a student to copy your paper, or plagiarism. This includes lab work. Data may be the same on a lab, but the answers to questions and the conclusion must be your own work.

## Parent Information & Acknowledgement Form

*Please complete the form below and have your child return it to Ms. Lunsford*

**Parent/Guardian Name:** \_\_\_\_\_

**Home Address:** \_\_\_\_\_

**Home phone:** \_\_\_\_\_ **Work phone:** \_\_\_\_\_

**Cell phone:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

### **Syllabus Acknowledgement Statement**

We hereby acknowledge that we have read and understand the course expectations, procedures, and guidelines for Honors Physics for the 2011-2012 school year.

\_\_\_\_\_  
Student Name (please print)

\_\_\_\_\_  
Parent Name (please print)

\_\_\_\_\_  
Student Name (signature)

\_\_\_\_\_  
Parent Name (signature)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date