

Honors Physics Syllabus

Physics is interesting.

- Physics is a study of the behavior of matter – what happens and why.
- It is the foundation of all the sciences.
- The language of physics is math: the beautiful thing about our physical world is that it can be explained in simple mathematical relationships.

Physics is not easy.

It requires not only your effort to “do” the work, but also your diligence to learn the content. Success in this class depends primarily on how well you master what we cover, not how much work you do. You have to want to succeed. This means:

- Don't miss class!
- Be present and engaged in what we're doing.
- If you don't get something, ask! You need to be pro-active in seeking help.
- I may not directly answer your questions; instead I will guide you toward discovering the answer for yourself.
- Work together with your friends to learn the stuff, not just to finish the work.

You can do physics. But you must have the desire and persistence to work at it. Don't give up! However, I do expect you to have strong algebra skills, including:

- Manipulating equations,
- Simplifying numbers in scientific notation,
- Solving and graphing lines,
- Solving quadratic equations using the quadratic formula, and
- Using basic trigonometry (sin, cos, and tan) to describe and solve right triangles.

I expect you to be able to use the internet for research, and use Microsoft Excel to organize and graph data.

Class Resources

Textbook: Conceptual Physics by Paul Hewitt
Class Website: <http://bit.ly/sghschem>
Email: bronsoc@gcsnc.com

My schedule:

Block 1	Honors Physics
Block 2	Planning
Block 3	Honors Chemistry
Block 4	Honors Chemistry

Extra Help Sessions: (subject to changes if needed)

Monday: 430-515pm

Thursday: 800-845am

Expectations

Physics is a very challenging subject. In order to create a learning environment for every student to be successful, I expect all students to:

1. **Be respectful** to me, to yourself, and to other students in your words, actions, and attitudes;
2. **Be diligent** and putting in your best effort into your classwork and homework to master the material;
3. **Be prepared** by completing the homework, bringing supplies to class, and being present in class;
4. **Be engaged** in the classroom activities; and
5. **Be pro-active** to ask questions and seek out help.

Supplies

You should bring to class every day:

- A binder to keep class notes and handouts organized;
- Writing instruments, including pencil and eraser, pens, and/or colored pencils;
- Paper – lined paper and graph paper; and
- A scientific calculator (graphing calculators will not be allowed on exams).

Do Not Bring: Do not bring food, drinks, cell phones, or other electronic devices to class. Chewing gum is not permitted in class.

Topics Covered

- Motion
- Forces
- Momentum
- Energy
- Vibrations and Waves
- Sound
- Light
- Electricity
- Magnetism

Class Structure and Policy

In-Class Activities: You should be in your seat when the bell rings, or you may be marked tardy. Your opening tasks are usually written on the board. You should be actively engaged in the learning activities during class, following the instructions given in class. If we are having a class discussion, you should be participating and actively taking notes. You should not be having side conversations, or working on assignments from other classes.

Quick Checks: We will often begin class with a brief “Quick Check”, either to see what “pre-knowledge” you have about the material we’re about to study, or to see if you’ve mastered the material we studied previously. Make notes to yourself when we go over them, so you know what areas you need to review.

Homework: Unless otherwise stated, homework is due two classes after it was assigned so you have an opportunity to ask questions about it. You must turn in homework in the homework tray before the bell rings for class in order to receive full credit. Assignments are checked for completion and returned to you. Because I am not checking for correctness, you need to review the answers (given in class or posted on the website) to make sure you know and understand everything, and ask me questions if you don’t. Homework is written on the whiteboard in class or posted on Canvas.

Showing Work: All work on homework and tests must be neat and organized. If I cannot read or follow your work, I can’t give you credit. For problems that involve math, you must have the following to earn full credit:

- **Diagram**, with all necessary components labeled (if applicable),
- **Information** given in the problem,
- **Equation(s)** you’re using,
- **Steps** to solve the problem, and
- **Answer** to the question asked in the problem, with the correct number of significant figures and units.

Absences: Because we cover so much during each class, it’s important that you minimize absences. However, sometimes an absence is unavoidable. If you know you will be absent, please make arrangements with me as early as possible so you will not miss anything. Any make-up assignments, labs, and tests must be completed within one week of the absence. Any work not made up will receive no credit. It is your responsibility to come to me to determine how to make up missed items; I will not follow up on you.

Discipline Policy

Violations of Class Norms

The general consequences to violations of class norms are:

- Verbal Warning
- Parent Contact
- Detention and Parent Conference
- Referral

The specific consequence is determined on a case-by-case basis. Defiance of my instructions is an automatic referral.

Academic Honesty

We want to create an environment for everyone to demonstrate what they've learned. While working with other students to learn the material is encouraged, copying from them and cheating are not allowed.

- Do not copy someone else's work. You should never have someone else's work. Both will receive zeros.
- During a test, do not look like you're cheating.

If there is suspicion of cheating, you may receive zeros on the task and/or a referral. If you are unsure what comprises cheating, ask me!

Grading

Your grade primarily reflects your mastery of the content; I believe every student can and I expect every student to achieve mastery, earning an A or B. I do not offer extra credit, curve grades, or round up to the next grade.

Grading Scale:

A = 90 % – 100 %	Advanced
B = 80 % – 89 %	Proficient
C = 70 % – 79 %	Basic
D = 60 % – 69 %	Below Basic

Approx. Weight:

Classwork and Homework	20%
Labs	20%
Unit Tests	40%
Quizzes	20%