

Honors Physics

Dr Vidya Rao

Email: vidya1.rao@cms.k12.nc.us

ABOUT ME:

I am excited about starting my eighth year at Ardrey Kell. I have a MS from Mumbai University in India and a PhD in Bioengineering from the University of Illinois at Chicago. Before moving to Charlotte, I worked as a Post-Doctoral Fellow in Regenerative Medicine at Clemson University, SC. I live with my husband and our two boys in Charlotte. I look forward to teaching your students this year.

CLASS DESCRIPTION

Welcome to Physics! Honors Physics is a math intensive course for students interested in developing a strong foundation in science. Honors Physics incorporates algebra and trigonometry mathematical models to introduce fundamental concepts that describe the physical world. Laboratory experiments and computer-based exercises will enhance and consolidate the understanding of basic physical principles and applications. Given the 4x4 framework, a test is given approximately every 2nd week. It is because of this fast pace that I encourage you to try your best not to miss a class. A curious mind and a conscientious approach are expected. Consistent efforts and honest communication with the teacher are the key to success in my class.

Course Topics

- Kinematics
- Dynamics of forces
- Circular Motion
- Work, Power & Energy
- Momentum and Impulse
- Waves including Sound and Light
- Electrostatics
- Electric Circuits
- Magnetism

NEEDS: For this class you will need

- A scientific calculator
- Three-ring binder (with 9 dividers - 2inch)
- Loose Filler paper College Ruled & Quad Ruled
- Pens, Pencils and Rulers.
 - **Classroom Donations:** Painter's/Masking Tape Dry Erase markers

ASSIGNMENTS: Prepare 20% Rehearse 30% Perform 50%

- Tests & Labs are PERFORM grades and Midterm exam will account for 20% of your Q1 grade.
- Tests will be a combination of multiple choice and free response questions.
- **Prepare** and **Rehearse** grades are from warm-ups, exit tickets, quizzes, minilabs and class participation.

NOTEBOOKS:

The key to doing well in this class is organization! There should be ten sections, one for each unit that we cover. Make sure your notes and practice work are secure in a folder, physical or virtual.

CLASS RULES:

1. Be on time and ready for class. Earpods in and writing devices, materials & calculators out.
2. No food or drinks except for **water**.
3. All students and parents must sign a safety contract **BEFORE** participating in labs.
4. Please do not talk when I am talking in the class and raise your hand if you have a question.
5. Be respectful of your fellow classmates.
6. No sleeping or putting your head down in class.
7. Do not use cellphones unless instructed to do so.
8. Do not use AI-generated work for any submission without permission.
9. **Remain seated until I dismiss you.**

TEXTBOOK: *Essential Physics, 2nd Ed.* This textbook is an interactive e-book filled with great resources to master physics. **The textbook Website:** <http://essential-physics.com/NC/sbook> **Code:**

MAKE UP WORK:

As this class moves at a very fast pace, it is best to be present as much as possible. If a class period is missed, it is the **student's responsibility** to get his/her make up work AND plan to learn the covered content.

TUTORING:

I will be available to tutor Tuesday afternoons from 2:30-3:00 pm or by a prior appointment.

DAILY PROCEDURES:

- Warmups are to be completed EACH day as you enter the classroom. Everyone should be working by the time the bell rings. Warm-ups deal directly with content learned the previous day and will be collected for grades.
- **Homework is due at the START** of class during the warm-up time, else it will be marked late. It is better to turn it in late than not turn it in at all.
- Putting forth an effort with homework and classwork is critical to your success in this course.
- If I allow you to work in groups, you are expected to use each other as a resource to have your questions answered or get concepts explained.

RETESTING:

- Those who secure a test grade of less than 80% are eligible to retest provided they attend tutoring after school, have made up most of their missing work and completed test corrections.
- The highest possible score after a retest is 80%.
- Students have three weeks to attempt a retest on a particular unit after the test.
- If you miss the agreed upon day for a retest, then the original score will stay.
- No debriefs for retesting and absences in debriefs cannot be made up.

Get the required signatures on page 3 and drop them off in the requested bin for submission. Keep this page for your records.

Name: _____ Period: _____

To the Student:

My signature below indicates that I have been provided with a copy of the course syllabus for physics. My teacher has reviewed these policies with me, and **I understand what is expected of me** to be successful in this course. I also understand how my grade for this course will be determined. **I agree to abide by these rules and guidelines.**

Student Signature: _____ Date: _____

To the Parent / Guardian:

I have read the guidelines on course expectations and grading that were provided to my child. **I understand** these guidelines and will support their use in ensuring my child's success in physics class this year. I will be **completing the form** on the weebly shortly.

Drvrao.weebly.com

Parent Name: _____

Preferred contact (phone or email): _____

Parent Signature: _____ Date: _____