Naperville North High School – AP Physics 1
Class website: on Canvas
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Guidelines for Success: It takes PREPARATION – RESPONSIBILITY – INTEGRITY – DEDICATION and EFFORT.

Course Description: AP Physics 1 is an inquiry-based course designed to expand on the principles of how and why the world around us works and find practical applications of physics through labs, data analysis, problem solving, and discussions. Students taking this course should be self-directed learners with strong math-computational skills.

GOALS FOR THIS COURSE:
1. Become a better critical thinker and problem solver. This requires you to take risks, make mistakes, and try again. You should be rewarded for this, not penalized.
2. Focus on learning, not just getting an A on an assignment.
3. Be responsible for your own learning. No one is going to hold your hand when you get to college. Start being responsible now.
4. Demonstrate what you understand. Your grade will be based on the standards for this course. You will have multiple opportunities to demonstrate your understanding.

CONTENT UNITS:
- Scientific Thinking and Tools (STT)
- Constant Velocity Particle Model (CVPM)
- Balanced Forces Particle Model (BFPM)
- Constant Acceleration Particle Model (CAPM)
- Unbalanced Forces Particle Model (UBFPM)
- Projectile Motion Particle Model (PMPM)
- Energy Transfer Model (ETM)
- Momentum Transfer Model (MTM)
- Momentum-Energy Transfer Model (METM)
- Simple Harmonic Motion (SHM)
- Uniform Circular Motion (UCM)
- Rotational Motion (RM)
- Charged Particle Model (CPM)
- Circuits (CIR)
- Mechanical Waves Model (MWM)

GRADING:
Your coursework grade will be based upon the following:
- Formative - daily work (10%)
- Summative - Lab Reports & Lab Practicals (20%)
- Summative - Exam Standards (70%)

Your semester grade will be determined by:
- Coursework (85%)
- Semester Final (15%)

HOW STANDARDS-BASED EXAMS WORK
A grade is given for each standard on the Exam
You will receive a number grade (5, 4, 3, 2 or 1) for each standard on the exam. In this way, we will be able to access exactly what content you grasped or struggled with on the exam. The descriptions and percentages of the numerical grades are:

5 = 100% Clear & complete understanding is demonstrated
4 = 87% Significant understanding demonstrated but a minor aspect of the solution is incorrect or unclear
3 = 75% Partial understanding is demonstrated. Key aspect(s) of the solution are missing or solution reveals a lack of depth of understanding.
2 = 63% Little understanding is demonstrated. The solution contains a major misconception(s) of a key concept.
1 = 50% Attempt made with no demonstration of understanding
0 = 0% No attempt made at demonstration of concept

Academic Integrity
Academic Integrity Students will be expected to submit only original work and follow the academic integrity policy described in the NNHS student handbook.
- Level 1 infraction will follow our reassessment policy, students will earn no more than – 80%;
- Level 2 infraction – 50%;
- Level 3 infraction – 0%

Cell phones are not allowed during assessments. Any student with a cellphone out during assessment is subject to a referral.
REASSESSMENT POLICY
If eligible, you may reassess to improve your score on a specific standard only if you received a 3 or lower on that standard on the exam. The reassessment question may involve multiple standards at a time and you will have to complete the entire question even if only reassessing one standard. The highest score possible on a second try question is a 3.5 (equivalent to 80% per school policy). The reassessment question(s) may be more complex, so it is to your advantage to prepare and score well on the original exam. In order to be eligible to take a reassessment, you must complete and turn in your homework the prior to the test.

You may also be required to complete additional practice BEFORE taking the reassessment as an 'entrance ticket'.

LABS AND LAB STANDARDS:
Lab work for this course will be separated into:
Lab activities—used to develop understanding of the concepts
Informal Lab reports - turning in data, analysis questions, conclusion, and reflection (see lab write-up handout for instructions)
Lab Practical- assessed on your results from the lab and interpretation of data

There will be no reassessment opportunities for the Informal Lab Reports or the Lab Practical.

TO BE SUCCESSFUL IN THIS CLASS:
Inside classroom:
1. BE ENGAGED—take notes. Participate in labs and group problem solving. Share what you are thinking.
2. ASK QUESTIONS- If there is something you don’t understand or need clarified- ASK right then. Questions are welcomed and help you understand!
3. STAY ORGANIZED- there are a LOT of handouts and labs in this class. Have a binder where you have sections for labs, worksheets, and notes. A LAB NOTEBOOK IS REQUIRED BY AP FOR THIS COURSE as a record of your work.

Outside of classroom:
1. READ the assigned readings and take notes on them as you read!
2. DO THE HOMEWORK - You must practice outside of class to reinforce understanding- DAILY! This is the only way to stay on top of the material.

3. PREPARE FOR TESTS & QUIZZES - Create a study guide from the standards for the chapter. It will help you review the material and focus on what you will be assessed on.
4. COLLABORATE WITH OTHERS - Find some others in the class to study with in the morning, during lunch or after school. When you teach others, there is a deeper understanding of the material that happens.

HELP!
Do you need extra help for this course? What can you do?
1. Come find your teacher in the morning, or after school (talk with them to arrange a time beforehand).
2. Get a tutor in the Lit Center- You can drop in one time, or you can set up a weekly visit. Many physics tutors are previous AP Physics students.
3. Video resources are available via Physics Done Phast (from a former NNHS student), college board website and our online textbook for Mastering Physics.

COMMUNICATION POLICY:
I will try to respond to emails within 24 business hours.

INFINITE CAMPUS:
Grades will be posted throughout the semester on Infinite Campus. This grade is a work-in-progress and should not be considered final until the end of the semester. If you notice any errors or missing assignments, please talk to your instructor. Periodically check your progress, but don’t constantly monitor your grade. Looking at your AP Physics 1 “grade trend” (improving or declining) is better than looking at it as “points earned”, enabling you to proactively try new strategies to improve your understanding of physics. Work smarter rather than blindly working harder.

REQUIRED MATERIALS:
Graphing Calculator (will be cleared after every assessment), lab/Homework notebook, 3-ring binder
Textbook: College Physics AP Edition (3rd addition) Knight, Jones, Field

Online Resources: Mastering Physics & AP Classroom (codes provided by teacher)