Course Description: Physics 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 will investigate the topics of motion, force, energy, momentum, electrostatics, electricity, magnetism, sound, waves and light.

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 9/10 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:
Kinematics:
- Constant Velocity Model
- Constant Acceleration Model
- Free Fall & Projectile Motion Particle Model

Forces:
- Balanced Forces Model (Newton’s 1st & 3rd Law)
- Unbalanced Forces Model (Newton’s 2nd Law)

Momentum:
- Conservation of Momentum and Impulse

HOW STANDARDS QUIZZES WORK: Content Standards Quizzes
There will be 3-6 content standards per unit. For every content standard, you will be given two standards quizzes focused on that specific standard. Your will receive a grade for these standards quizzes based on a 5,4,3,2,1 scale.
5 = 100 %, Clear demonstration of understanding, master of concept shown
4 = 87%, Significant understanding demonstrated, but a minor or key aspect to the solution is missing
3 = 75%, Partial understanding is demonstrated (you are in the right ballpark, but misapplied some key information or concepts)
2 = 63%, Significant errors are present, clearly struggling with understanding of the standard
1 = 50%, No demonstration of understanding
Your two scores on the quizzes for a given standard will be averaged together.

REASSESSMENT POLICY
You will be given the opportunity to demonstrate mastery by taking a Final Opportunity Quiz for each standard. If the score on the final opportunity quiz is higher than your previous average score on the standard, it will replace the lower score. If you score lower on the final opportunity quiz, it will not hurt you.

WARNING: The maximum score awarded on a Final opportunity quiz will be a 4 (an 87%), so it is to your advantage to so well on the standards quiz the first time around. Also, the questions on the standards quizzes are progressively more difficult, meaning the final opportunity questions are complex. In order to prepare for the opportunity quiz, all homework for that standard must be shown before taking final opportunity quiz.

HOMEWORK
The homework for each unit will be collected at the end of the unit. Full credit will be given if all worksheets are done with all stamps present for having done them on time. Partial credit will be given if stamps are missing. Readings on Canvas with the reading form to fill out will be counted as homework.
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, 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 Practicals. If you would like to improve your grade on the Formal Lab Report for the semester, you may take any informal lab and make it a formal lab report to replace your previous score.

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.

Outside of classroom:
1. READ THE ASSIGNED ARTICLES- it a great resource! Take Notes as you read — make an outline of the information.
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, during lunch, 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.
3. Supervised Open Study (SOS) is available after school on Mondays –Thursday up in the lit center. This is place to do your homework and study and seek out help in all subject areas (a teacher from each subject is present).

COMMUNICATION POLICY:
See the email and phone number for your instructor on the front of this page. Any email or phone message will be responded to within 48 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.