PHYS-1730: ACE Physics I – Mr. James

Expectations and Standards

Description:
Introductory principles of classical and modern physics. Mechanics of solids, periodic motion and sound, and heat and properties of matter. *(4 cr. hrs.)*
Prerequisite: Three years of high school math, including Algebra II.

Course Learning Outcomes
Upon completion of this course the student should be able to:
- Interpret and calculate physical characteristics of objects in circular motion.
- Describe conservation of energy as applied to mechanical systems.
- Analyze and solve work, power and energy applications in mechanics.
- Model and solve applications of vector forces acting on objects in classical mechanics.
- Analyze and predict two dimensional motion for objects governed by Newton's laws.
- Describe conservation of momentum and impulse in two dimension collisions.
- Illustrate equilibrium problems and show mathematical balance.
- State the description of temperature, heat and thermal expansion of solids.
- Collect and analyze data from thermodynamic and mechanics labs and write a lab report

Grade Standards:
Participation: 20% - <u>attendance</u>, <u>on-task</u>, <u>ask/answer questions</u>, <u>prepared</u> (see below)
Quizzes/Labs: 40%
Tests: 40%

A final exam will be given which will count for 1/3 of the final course grade.

Classroom Expectations:
- <u>Start of class</u> – Be *on time* and *prepared*
  (3 things: laptop, paper, pencil/eraser)
- <u>Lesson time</u> - Pay complete attention
- <u>Class work time</u> - Be on task
- <u>Always</u> - Follow directions the first time

Cell Phones: Cell phones may be out ONLY during class work time and for LIGHT use only. Cell phones may NEVER be used for phone calls, pictures, videos or audio recordings If these rules are abused, cell phones will be completely banned from class.

Academic Honesty: Cheating will result in a grade of zero and parental notification.

Failure to meet these expectations will result in a lower participation grade, parental notification and other appropriate consequences as determined by teacher.