**Physics 11 – Course Outline**

**Teacher**: Mr. Westergaard **Contact**: nwestergaard@sd44.ca

**Website:** nwestergaard.weebly.com

**Where to find me**: Room 119

|  |  |
| --- | --- |
| **Course Content** | **Topics** |
| Introduction to Physics | * The Nature of Physics
* Significant Figures
* Accuracy and Errors
* Unit Conversion
* Graphing
 |
| Kinematics | * Displacement and Velocity in One Dimension
* Acceleration in One Dimension
* Projectile Motion
 |
| Dynamics | * Force of Gravity
* Force of Friction
* Elastic Forces
* Newton’s Laws
* Momentum in One Dimension
 |
| Energy | * Work and Power
* Conservation of Energy
* Heat and Thermal Energy
* Efficiency
 |
| Waves and Light | * Wave Motion
* Interference
* Reflection and Refraction
* Snell’s Law
* Lens and Mirror Optics
 |
| Modern Physics | * Special Relativity
* Nuclear Fission and Fusion
 |

**Grading**

Quizzes/Homework 20%

Labs/Projects 25%

Tests 35%

Final Exam 20%

**Notes:**

* Come to class prepared. Pens, pencils, rulers, calculators and paper are always required.
* During lessons or lab instructions, please pay attention and do not distract yourself or others with mobile devices.
* There will be time to work on the new concepts at the end of each class. For the sake of others, don’t disrupt those who may be trying to learn during the work time.
* Try the homework problems. I make quizzes and tests that are based on the homework. If you don’t understand anything, ask for help.
* If you know what to do to solve a problem, but forgot how to do math, write me a short paragraph or description how you would solve it using physical concepts. This is worth the majority of the marks.
* No eating in class. We share the room with Grade 8 classes. They are filthy.
* I’m an old man who doesn’t like your new-fangled “pop music”. Be considerate and use headphones when listening to music during the work time.

**Absent Policy**

 If absent for you are absent for any reason, you are responsible for making up for any missed concepts or learning. If you missed a quiz, test, lab or project, it is your responsibility to work to make sure it is made up.

**Late Assignment Policy**

 If an assignment, lab, or project is handed in late it will be placed into the late bucket. All late assignments are given a mark of zero. If I have the time to mark the assignment, then it replaces the zero that you have received.