



Sturgeon Composite High School

Physics 30

COURSE OUTLINE



PREREQUISITE: Minimum of 50% in Physics 20
Recommended 60% in Physics 20 and Math 20-1

TEXT: Physics: Pearson

MATERIALS: Scientific or Graphing Calculator
Binder, Paper, Ruler, Protractor

CONTENT:

The Physics 30 program is an academic course dealing with the study of the fundamental conservation laws and the nature of matter. Through the study of the physics program students will develop a further understanding of the physical universe.

EVALUATION:

The Physics 30 program consists of four units of study during the regular term and a diploma exam. Each of the units below will be further broken into equal portions of term work (35%) consisting of labs, quizzes and assignments and unit exams (35%)

UNIT I: Momentum and Impulse (15% of the course)

The study of Newton's second law of motion and its connection to the concepts of momentum and impulse.

UNIT II: Forces and Fields (30% of the course)

Study of electric and magnetic forces and fields and their applications to technological devices.

UNIT III: Electromagnetic Radiation (30% of the course)

Study of the nature and characteristics of electromagnetic radiation (EMR), using the wave and photon models of light.

UNIT IV: Atomic Physics (25% of the course)

Study of the development and modification of models of the structure of matter.

Term Work	70%
Diploma Exam	30%

BEHAVIOURAL EXPECTATIONS:

As outlined in the student agenda and by the individual teacher.

ADDITIONAL RESOURCES:

Alberta Education "My Child's Learning"

<https://www.learnalberta.ca/content/mychildlearning/>

Alberta Education "Physics 20/30 Student Based Performance Standards"

https://education.alberta.ca/media/160093/12-p20-p30_studentbasedperfstand-2013-14_signoff_manualtoc.pdf