



Physics 30

Teacher: Mrs. Dana Marshall (danamarshall@prrd8.ca)

Dates: Semester 2, 2025-2026

Google Classroom Code: oe6ph4k

Prerequisite: Physics 20

Recommended Math 20-1

Resource: Pearson Physics

Other necessary supplies: a scientific or graphing calculator, sharp pencil, eraser, ruler and other regular classroom materials

Subject Matter:

Unit

General Outcomes

Unit A: Impulse and Momentum

A1. Students will explain how momentum is conserved when objects interact in an isolated system.

Unit B: Forces and Fields

B1. Students will explain the behaviour of electric charges, using the laws that govern electrical interactions.

B2. Students will describe electrical phenomena, using the electric field theory.

B3. Students will explain how the properties of electric and magnetic fields are applied in numerous devices.

Unit C: Electromagnetic Radiation C1. Students will explain the nature and behaviour of EMR, using the wave model.

C2. Students will explain the photoelectric effect, using the quantum model.

Unit D: Atomic Physics D1. Students will describe the electrical nature of the atom

D2. Students will describe the quantization of energy in atoms and nuclei.

D3. Students will describe nuclear fission and fusion as powerful energy sources in nature.

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Evaluation:

Your mark will be based on the following:

Unit A: Impulse and Momentum	15%
Unit B: Forces and Fields	30%
Unit C: Electromagnetic Radiation	25%
Unit D: Atomic Physics	20%
Lab Skills	10%

Your **unit marks** will be generated using the following:

- Quizzes will be worth 20% of a unit. Quizzes will either have a group component or, if completed individually, students will have an opportunity to write a second version to demonstrate improved understanding.
- Exams will be worth 80% of a unit.

The course-based mark (awarded by the teacher) is worth 70% of the final grade in Physics 30. This mark will be combined with the grade on the Alberta Education Physics Diploma Exam (worth 30% of your final grade) to provide the final grade in the course. This exam will be written on June 22, 2026.

You can have one unit exam rewrite in June before the diploma. The mark of the rewrite is kept, even if it is lower than the original attempt.

Lab Skills

Your lab skills will be assessed throughout the course. Each lab report will focus on one or more of the following lab skills: Experimental Design, Graph Creation and Interpretation, Data Analysis, and Drawing Conclusions.

You will be provided with feedback on each lab you submit. Your level of achievement on that skill will be identified as being Beginning Standard (BE), Acceptable Standard (AS), Proficient Standard (PF), or Standard of Excellence (SE). At the end of the course you will be given a grade on each skill, *based on your achievement at the end of the course*.

Assessment Notes:

A wide range of assessment information is used in the development of a student's final grade. At Eagle Butte High School, individualized assessments provide specific information regarding student progress and overall performance in class. Assessment may vary from student to student, differentiating for various student needs. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.

Attendance:

If you know that you are going to be absent for an extended period, contact Mrs. Marshall as soon as possible.

Students are responsible for all material covered and assessments missed during an absence. Missed material, notes, and assignments can be obtained from the Physics 30 Google Classroom. The daily topics, with unit package page references and links to video tutorials, can be found on the google site calendar.

It is the student's responsibility to contact the teacher immediately following an absence and ensure that arrangements to fulfil course requirements are made immediately following an absence.