

New Westminster Online Learning School

Course Title and Grade: Physics 12

Prerequisite: Physics 11

Course Description

In Physics 12, students build on concepts from previous physics courses and are introduced to more advanced topics that are important for this course and beyond. This course focuses on building analytical skills and problem-solving strategies that apply to real world scenarios. The topics covered in this course include energy conversion, momentum, magnetic forces, electricity, and magnetic fields. The online version of this course affords students the ability to work independently at the pace that best suits them while requiring careful time management and developing communication and thinking skills.

Enduring Understanding/Big Ideas

- Measurement of motion depends on our frame of reference
- Forces can cause linear and circular motion
- Forces and energy interactions occur within fields
- Momentum is conserved within a closed and isolated system

Specific Learning Outcomes

- Questioning and predicting
- Planning and conducting
- Processing and analyzing data and information
- Evaluating
- Applying and innovating
- Communicating

For specifics, please check the official BC Curriculum: <https://curriculum.gov.bc.ca>

Course Content

Module 1	Physics Review
Module 2	Equilibrium & Torque
Module 3	Circular Motion
Module 4	Momentum
	MIDTERM EXAM
Module 5	Electrostatics
Module 6	Electromagnetism
Module 7	Induction
Module 8	Modern Physics
	FINAL EXAM

Evaluation

Quizzes	15
Projects	10
Unit Tests	30
Midterm Exam	20
Final Exam	25
Total	100%

Student Learning Activities and Strategies

All activities in this course—including learning guides, quizzes, unit tests, and projects—can be completed online from home through the course platform.

*Important: Learning guides are your primary source of notes in this course. Complete each package as you work through the material in the lessons. Check the key and make your corrections as needed.

Exams & Assessment

Both the midterm and final exams must be written in person at the Online Learning Centre located in New Westminster Secondary School. External invigilation is not permitted. In exceptional cases, alternate exam arrangements may be considered on a case-by-case basis, but they must be formally requested and approved in advance.

*Important: At least 50% of the course, including the midterm exam, must be completed before a grade can be reported on your transcript.

Course Expectations

1. Look through the course + create a timeline

- plan a tentative schedule and write out target dates for completing each unit
- schedule in your midterm & final exam date
- consistent effort is key to staying on track

2. Print and use the learning guides

- Print out the learning Guides for each unit
- These are not for marks, but they are your main tool for taking notes and practicing.
- Work through each lesson and complete all the questions in the guide as you go.

3. Write Quizzes Before Unit Tests

- Only write the unit test once:
 - All quizzes are completed and reviewed
 - The Learning Guide is fully completed, and answers are checked using the KEY

4. Ask Questions When You Need Help

- Use [CourseMail](#) to contact your teacher
- If you're stuck or unsure, reach out early — don't wait!



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Grade Adjustment Policy

If there is a difference of 30% or more between the final exam mark and your coursework average, then your final grade may be adjusted. In some cases, the coursework mark may replace the final exam mark to better reflect your overall understanding. All final grades are subject to the instructor's discretion.

Resources

There is NO textbook required for this course.
All material is provided online.