Physics 12 Course Outline

2025–2026 | Mr. Gullo

Course Description

This is an advanced course on physics that further explores motion, forces, energy, fields, electricity, and modern physics. Students will continue to build scientific skills while tackling more challenging concepts including momentum, gravitation, electromagnetism, and relativity.

Important: Physics 12 is **required for Engineering and Science programs** at Canadian universities (UBC, UofT, Waterloo, etc.). Your performance in this course is a key factor in university admissions.

> **You Belong in Physics!**
>
> Physics might seem intimidating at first, but here's the truth: **anyone can succeed** with curiosity, effort, and the right support. You don't need to be a "math genius" to excel here—physics is about understanding how the world works.
>
> *Every physicist started exactly where you are now. Questions aren't signs of weakness; they're signs of learning!*

Contact & Help

Priority	How to Get Help
Option 1	Check your notes and textbook
Option 2	Ask a study partner or classmate
Option 3	Schoology messaging
Option 4	Office hours

Schoology: This portal contains all course materials (PPTs, notes, review packages) and your grades.

Course Materials

- **Textbook** will be issued as a reference
- **Assessments:** Paper or Schoology only
- **Calculator:** Casio fx-991EX ClassWiz (recommended)
- **Formula sheet** provided—can be used for tests (no additions allowed)

Grading Breakdown

Category	%	Details
Unit Tests	30%	1 per unit; 2 periods (80 min)
Quizzes & Period Tests	15%	1–2 quizzes (<40 min); 1–2 period tests (40 min) per unit
Activities/Labs	15%	1–2 activities per unit; 1 lab per unit
Homework	9%	1 check per unit
Assessment for Learning	1%	Practice and feedback
Midterm	10%	Cumulative
Final Exam	20%	Cumulative

Written Work: On unit tests, midterm, and final, written work counts for **30%** of the score. Always show your work on quizzes for partial credit!

Topics Covered

#	Unit Title	Resources
1	Vectors & 2D Kinematics	[OS] Ch 5.1–5.3
2	Momentum & Impulse	[OS] Ch 8
3	Rigid Body Mechanics	[OS] Ch 6, 9.3
4	Gravitation & Astrophysics	[OS] Ch 7, 22.5
5	Electrostatics	[OS] Ch 18.2–18.5
6	Electromagnetism	[OS] Ch 20
7	Atomic & Nuclear Physics	[OS] Ch 21, 22.1–22.4
8	Relativity & Particles	[OS] Ch 10, 23

Classroom Expectations

Area	Expectation
Respect	Treat teacher, classmates, and yourself with respect. Believe in your potential!
Attendance	Attend all classes punctually and prepared. Notify in advance for planned absences.
Deadlines	All work due at **start** of class on the due date.
Washrooms	Use before/after class. If needed during class, go quietly.

Making Up Missed Assessments

Type	Policy
Quizzes/Period Tests	Makeup available with advance notice. See me to schedule.
Unit Tests	Scheduled 1 week ahead—plan accordingly. Group conflicts can be discussed.

If you miss an assessment: (1) Talk to me when you return, (2) We'll find a solution, (3) Bring documentation if medical/family-related.

Lab Safety

> ⚠ **Safety is our top priority.** Failure to follow procedures = removal from lab and possible zero.

Stage	Requirements
Before Lab	Read instructions; ask questions; secure hair, clothing, jewelry
During Lab	Follow instructions; work with partner; report issues immediately; stay organized
Emergency	Know safety equipment locations; report all injuries; stay calm

Academic Honesty & AI

The Nanmo BC Academic Honesty Policy (Course Admin on Schoology) is our primary framework.

1. Suspected cheating: may be asked to demonstrate understanding. Failure = zero.
2. Assisting cheating = zero.
3. Repeat offenses referred to principal.
4. **Generative AI:** Useful for learning, but **submitting AI work as your own violates policy.**

Additional Policies

Policy	Details
Sleeping	Class time is not for sleep. Repeated issues = homeroom referral.
Resubmission	One per semester for grades <60% (deadline: 2 weeks before semester end). Max grade: 75%.
Late Work	Marked "missing" (zero) unless extension requested **24+ hours before** due date.
Submissions	Must be a **single PDF or PPT**—otherwise zero.

Messaging on Schoology

Subject Line Format: `Physics 12 - [Section] - [Block]`
Example: `Physics 12 - Section 2 - Block C`

Type	Include
Homework	Unit/assignment name; what you tried (photo); specific question
Lab Questions	Lab name; group #; which part; relevant data

↰ **Response time:** Within 24 hours (school days); next school day for weekends.

Cell Phone Policy

All phones must be in the **phone box** or **locker**—not in bags, pockets, or desks.

Procedure	Details
Phone Box	Place phone upon entering (off or silent)
Usage	Teacher approval only; return immediately after
Compliance	Random checks may occur
Violation	Phone confiscated; school policy followed

Student Acknowledgment

I have read and understand the Physics 12 Course Outline and agree to follow the policies described.

Student Name: _____ **Date:** _____

Signature: _____ **Block:** _____