



NORTH TORONTO COLLEGIATE INSTITUTE
SPH4U
Physics
Grade 12, University

General Course Information

Prerequisite:	Grade 11 Physics (SPH3U)
Teacher:	Zheng, M; Lau, G
Department:	Science
Extra Help:	By appointment: Before school, lunch and after school
Textbook and Replacement Cost:	Physics 12 – Nelson (\$103.14 fee is charged for lost textbook)
Material Required:	Binder, pen, pencil, ruler, graph paper and scientific calculator

Course Description

The grade 12 Physics course is based on the Ministry of Education and Training document entitled The Ontario Curriculum Science, Grades 11 and 12 (Revised, 2008). The secondary science program is designed to promote three goals:

- to relate science to technology, society, and the environment
- to develop the skills, strategies, and habits of mind required for scientific investigation
- to understand the basic concepts of science

The following topics are covered in the course:

- Dynamics
- Energy and Momentum
- Gravitational, Electric, and Magnetic Fields
- The Wave Nature of Light
- Revolutions in Modern Physics: Quantum Mechanics and Special Relativity

More details regarding the physics curriculum can be found at:

https://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf#page=196

Assessment and Evaluation

To promote student success, ongoing assessment and feedback will be given regularly to the students. A variety of assessment and evaluation strategies will be used in this course, including quizzes, tests and assignments. Expectations will be evaluated based on the provincial curriculum expectations and the achievement levels outlined in the ministry document.

Expectations are organized into four categories of knowledge and skills. The categories and their maximum corresponding weighting is as follows:

Knowledge and Understanding	30%
Thinking	25%
Communication	25%
Application	20%

Each student's final mark will be in the form of a percentage grade based on their achievement in the 4 categories on the achievement chart. The breakdown of the final mark is as followed:

Term Evaluation	70%
Final Evaluation	30%

The final Evaluation will be completed during the final 6 weeks of the course and may include a variety of summative activities including an exam, a presentation, a seminar, or an essay or another writing assignment.

In addition to students' performance in the achievement categories, students will also be assessed on their performance in the following learning skills:

- Responsibility
- Organization
- Independent Work
- Collaboration
- Initiative
- Self-Regulation

For specific policies on assessment and evaluation, and academic honesty, please refer to *School Procedures* in the student agenda.