



**NORTH TORONTO COLLEGIATE INSTITUTE**  
**SPH3U1**  
**Physics**  
**Grade 11, University**

### General Course Information

Prerequisite:	Grade 10 Science (SNC2D1)
Teacher:	G. Lau, M. Zheng
Department:	Science (416-393-9180 Ext 20095)
Extra Help:	By appointment: Before school, lunch and after school
Textbook and Replacement Cost:	Physics 11 – Nelson (\$103.14 fee is charged for lost textbook)
Material Required:	Binder, pen, pencil, ruler, protractor, graph paper and scientific calculator

### Course Description

The grade 11 Physics course is based on the Ministry of Education and Training document entitled The Ontario Curriculum Science, Grades 11 and 12 (Revised, 2008). The following topics are covered in this course:

- **Kinematics:** students learn to describe motion using mathematical models, including equations and graphs.
- **Forces:** students describe the factors that cause motion, using mathematical models, graphs, and diagrams.
- **Energy:** students describe motion using the principles that govern energy transformations and conservation.
- **Waves:** students explore wave properties and interactions.
- **Electricity and Magnetism:** students develop an understanding of charges, circuits, and electromagnetic field laws.

A detailed list of the course expectations can be found at: [https://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11\\_12.pdf](https://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf)

### 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, labs, 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.