

Sir Wilfrid Laurier Secondary School

Grade 11 Physics – SPH3U

1.0 credits

Course Description

This course develops students' understanding of the basic concepts of physics. Students will study the laws of dynamics and explore different kinds of forces, the quantification and forms of energy (mechanical, sound, thermal, and electrical), and the way energy is transformed and transmitted. They will develop scientific-inquiry skills as they verify accepted laws and solve both assigned problems and those emerging from their investigations. Students will also analyze the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.

Strands and Subgroups

Motion <ul style="list-style-type: none">• speed, distance and time• distance-time graphing• vector and scalar quantities• vector diagrams• velocity and acceleration	Forces <ul style="list-style-type: none">• Newton's Laws• gravitational force• frictional force
Energy, Work, and Power <ul style="list-style-type: none">• energy transformations• work• mechanical energy• conservation of energy• power• thermal energy and heat• nuclear energy• radioactivity• energy in our society	Sound <ul style="list-style-type: none">• vibrations• wave properties and phenomena• properties of sound• human hearing• musical instruments
Electricity and Magnetism <ul style="list-style-type: none">▪ electrostatics▪ electric current and potential difference▪ electric circuits▪ electromagnetism▪ electromagnetic induction	

Evaluation

The final report card mark will be determined as follows:

Term Work – 70%
Unit Tests
Quizzes
Lab Reports-Assignments

Summative – 30%
Exam and/or Performance Task(s)

Attendance & Missed Evaluations

Regular attendance is an integral part of learning. Students are responsible for completing all work missed due to absence. Students must complete the missed evaluation immediately upon return to school, as determined by the subject teacher. Any missed term evaluation (e.g., test, quiz or lab) will result in a mark of zero, unless the absence is excused.

End-of-course evaluations, i.e. the summative activity and final examination are time-sensitive. Attendance is mandatory for these evaluations. Any absence will result in a mark of zero, unless validated by a doctor's certificate.

If a student participates in **academic fraud** (e.g. plagiarism in assignments/lab reports), he / she is deemed not to have met the expectations associated with that particular evaluation.

A mark of zero will be given for late assignments/labs/projects that exceed the limits.

General Course Information

Students must bring the following materials to each class:

- textbook
- separate Physics binder (to hold notes, tests, quizzes, handouts)
- pencil case (to hold pencils, erasers, ruler)
- scientific calculator
- lined paper

Course Text: Physics 11, Thomson-Nelson (\$110.00).

The student will be issued a text, and will be responsible for the cost of replacement, or repair, if the text is lost or damaged.
