

**Mississauga Secondary School
Course Overview**

Department: Science

Course Code: SPH 3UO

Course Name: Grade 11 Physics – University Preparation

Credit: 1

The organization and evaluation of this course has been designed to conform to the requirements of Ontario Secondary Schools and the provincial curriculum guidelines.

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, light, 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 analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.

Strands (Units of Study)	Description
Forces and Motion	Investigation of the relationship between forces and acceleration; the effect of net force on linear motion; evaluation of technology related to motion.
Energy, Work and Power	The concepts of work, energy, energy transformations, efficiency and power; analysis of energy-transformation technologies used globally.
Waves and Sound	Investigation of mechanical waves and sound and underlying principles; production and uses of waves and sound.
Light and Geometric Optics	Properties and principles underlying light; predicting the behaviour of light; development and use of optical devices and related technologies.
Electricity and Magnetism	Principles and laws related to electricity, magnetic fields and electromagnetic induction; investigation of technologies based on magnetic fields.

EVALUATION:

Assessment and evaluation in this course will be based on provincial curriculum expectations incorporating four broad categories – **Knowledge and Understanding, Thinking and Inquiry, Application and Communication.**

A final grade will be determined as follows:

Term work	- 70%
Final Evaluation	- 30%

TERM WORK		
CATEGORY	DESCRIPTION	% OF TERM MARK
Knowledge / Understanding	<ul style="list-style-type: none"> • Knowledge and understanding of facts, terms, concepts, principles and theories. • Understanding the relationships between concepts. • May be demonstrated through unit tests, quizzes, performance assessment, personal communication and assignments. 	35%
Thinking / Inquiry	<ul style="list-style-type: none"> • Critical thinking skills such as conducting analysis/problem solving and inquiry skills such as formulating questions, researching, interpreting and evaluating information and drawing conclusions. • May be demonstrated through lab work/quizzes, performance assessment, debates, written/oral analysis unit tests and research projects. 	30%
Application	<ul style="list-style-type: none"> • Application and transfer of concepts and skills and making connections, predictions and conclusions. • May be demonstrated through labs, reports, debates, observations, real-life performance applications, unit tests and quizzes. 	25%

Communication	<ul style="list-style-type: none"> • Oral and written communication of information and ideas, use of symbols, visuals and technology. • May be demonstrated through essays, presentations, oral / written reports, labs, seminars, debates, interviews and written responses. 	10%
TOTAL		100%

Note: The percentages listed for term work evaluation represent the breakdown used to determine a course mark up to the time of the final evaluation. Marks are adjusted once the final evaluation has been completed (refer to the final grade discussion for clarification).

FINAL EVALUATION – 30% of final mark
The final evaluation will include a summative assessment suitable to the course content and expectations. This assessment will be administered toward the end of the course. A summative exam is given to allow the student to demonstrate the full extent of their achievement of the curriculum expectations.

LEARNING SKILLS EXPECTATIONS

The following learning skills will be taught and assessed throughout the course and rated on the report card:

- Independent work skills
- Team work skills
- Organizational skills
- Work habits/homework
- Initiative

These skills will not be included in the final numeric mark unless they are part of the provincial curriculum expectations for the course. However, it is important to remember that the development of these skills is critical to academic achievement and does have a direct bearing on the final mark.

ADDITIONAL INFORMATION

Attendance

Regular attendance at school is critical for the student's learning and achievement of course expectations. Students are expected to follow the school policy regarding absence during an evaluation.

Plagiarism

Includes electronic theft and misrepresentation of original work, cheating, theft of evaluation instruments, use of unauthorized aids and false representation of identity – will result in appropriate consequences including a zero on the evaluation, suspension from school, loss of credit, or contact with the police.

Deadlines

Deadlines are realistic in the normal working life outside of the school setting. Deadlines are also set as a reasonable management strategy for teachers so that workloads can be varied and balanced; as a way of bringing closure on one unit of work and moving ahead to another.

Students must understand that teachers require a body of evidence (assignments, demonstrations, etc.) upon which to base their judgments for evaluation. To choose not to submit work may be to choose not to receive a grade for the assignment and chronic failure to submit work on time jeopardizes whether a final grade can be calculated or not.

- It is your responsibility to seek assistance from the teacher when you feel unable to complete a task/assignment due to insufficient knowledge or skill. It is not acceptable to advise the teacher of difficulty the day before or on the day a task/assignment is due.
- It is never acceptable to submit work late without negotiating alternate deadlines.
- Some deadlines are negotiated, some are absolute. If you do not submit/complete work on either a negotiated or absolute deadline, the i-1-0 policy will be put into place (refer to your student manual).

TIPS FOR SUCCESS:

Be prompt, be prepared and ask your teacher for assistance if you are having difficulties. HAVE A GREAT SEMESTER!