



Superior Collegiate and Vocational Institute

333 N. High Street, Thunder Bay, ON
807-768-7284 www.superiorcvi.ca



Course Name: Grade 12 University Physics / IB

Code: SPH4U1

Course Description:

This course enables students to deepen their understanding of physics concepts and theories. Students will continue their exploration of energy transformations and the forces that affect motion, and will investigate electrical, gravitational, and magnetic fields and electromagnetic radiation. Students will also explore the wave nature of light, quantum mechanics, and special relativity. They will further develop their scientific investigation skills, learning, for example, how to analyze, qualitatively and quantitatively, data related to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment.

Units:

- | | |
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| 1. Dynamics (Motion-Forces) | - forces and motion in one and two dimensions |
| 2. Energy and Momentum | - conservation of E and M, interactions in systems |
| 3. Gravitational, Electric, Magnetic Fields | - forces, fields and their interactions |
| 4. Wave Nature of Light | - properties of waves with respect to light |
| 5. Thermal Energy | - thermal energy, HEAT, stellar connections |
| 6. Modern Physics (Nuclear) | - relativity, particle behaviour |

Text(S): Nelson – Physics 12 Text book

Replacement Cost: - \$95.00

Prerequisite: - appropriate skill development in Grade 10 mathematics (applied or academic)

Assessment and Evaluation

Term Work	70%	Tests will incorporate the achievement chart categories. Quizzes will incorporate the achievement chart categories. Assignments, performance investigations, rich tasks.
Summative Evaluation	30%	End of semester exam. (25%) Study package with study log, other activity, or both (5%)

Learning Skills:	Works Independently	Levels of Achievement	Level 1 Needs Improvement
	Work Habits		Level 2 Satisfactory
	Team Work		Level 3 Good
	Organization		Level 4 Excellent
	Initiative		

ONLINE REFERENCE: <http://www.edu.gov.on.ca/eng/document/curricul/secondary/progplan/progplan.html>

STUDENT RESPONSIBILITIES AND EXPECTATIONS:

Students are expected to come to class on time, prepared (notebook, textbook, PENCIL, and scientific calculator), and ready to put forth their best effort.
Student Code of Conduct is consistent with the information outlined in the Student Handbook.

ONLINE REFERENCE: <http://www.edu.gov.on.ca/eng/document/brochure/conduct/conduct.html>

TEACHER CONTACT:

PHONE: 768-7284 Ext.

STUDENT SIGNATURE

Email: childs_math@yahoo.com

Website: www.mrchilds.com

*A detailed course outline is on record at the main office. It can be viewed at your request. Please keep this as page 1 of your notebook.