Forest Hill Collegiate Institute	
SPH4U	**Course Outline**

'This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with an emphasis on linear motion; different kinds of forces; energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.'

Prerequisite: Science Grade 10 Academic

Units of Study and Big Ideas	
Kinematics and Dynamics	Motion and its causes are described by mathematical equations
Circular Motion	A study of circular motion in relation to non-inertial frames of reference
Energy and Momentum	Energy and momentum equations provide an alternate method for studying motion
Fields	An introduction into the study gravitational, electric and magnetic fields
Light	A study of light as a wave
Revolutions in Physics: Special Relativity and QM	An introduction into the main ideas of modern physics: relativity and quantum mechanics

The overall and specific expectations can be found at: http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf

Teaching Strategies	Direct instruction through projected lectures is the most frequent teaching strategy used in this course. Indirect instruction as independent, cooperative and experiential learning are also used to enhance student achievement.

Assessment refers to the process of gathering information about student performance. This is done through conversations, assignments, quizzes. As part of assessment, the teacher provides the student with feedback that guides towards improvement.

Evaluation refers to the process of judging the quality of student work on the basis of established criteria and assigning a numerical grade to represent that quality. In this course, the following evaluation strategies will be used: tests, assignments, projects, lab reports.

The Achievement Chart provides a standard method for assessing and evaluating student achievement. The following distribution will be used in the calculation of the final mark:

Knowledge and Understanding	Application and Making Connections	Thinking and Inquiry	Communication	Miscellaneous	Final Activities
15%	15%	15%	15%	10%	30%

Learning Skills are abilities and habits that are essential to success in school and in life.
The evaluated learning skills are: responsibility, organisation, independent work, collaboration, initiative and self-regulation. The letters symbols used in the reports are:
E (excellent), G (good), S (satisfactory), N (needs improvement)

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