



ST. THOMAS AQUINAS SECONDARY SCHOOL

25 Corporation Drive
Brampton ON, L6S 6A2
Phone: 905.791.1195

COURSE OUTLINE

Department Name:	Science
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Course Name:	Grade 12 University Physics
Course 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. They 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 analyse, 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.
Strands/ Units:	<ul style="list-style-type: none">• Graphing/Error Analysis (math review)• Dynamics• Energy/Momentum• Gravitational, Electric, and Magnetic Fields• The Wave Nature of Light• Modern Physics: Quantum Mechanics and Special Relativity
Catholic Graduate Expectations:	This course helps students to meet the Ontario Catholic School Graduate Expectations by examining, evaluating and applying knowledge of interdependent systems (physical, political, ethical, socio-economic and ecological) for the development of a just and compassionate society.

Assessment and Evaluation:

Category Weightings	Weight
Knowledge/Understanding	25%

Thinking	35%
Application	25%

Communication	15%
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Final Summative	Grade
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Assessments	Distribution
Term Work	70%
Exam	30%