

Stephen Lewis Secondary School Student Course Outline / Parent Information Sheet

Program Area:	Mathematics	
Course:	Grade 10 Applied Mathematics	Code: MFM 2P0
Course Description:	<p>This course enables students to consolidate their understanding of linear relations and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relations. Students will investigate similar triangles, the trigonometry of right triangles, and the measurement of three-dimensional figures. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.</p>	

Units of Study

Unit	Major Evaluations
<p>Measurement and Trigonometry</p> <ul style="list-style-type: none"> • use their knowledge of ratio and proportion to investigate similar triangles and solve problems related to similarity; • solve problems involving right triangles, using the primary trigonometric ratios and the Pythagorean theorem; • solve problems involving the surface areas and volumes of three-dimensional figures, and use the imperial and metric systems of measurement. <p>Modelling Linear Relations</p> <ul style="list-style-type: none"> • manipulate and solve algebraic equations, as needed to solve problems; • graph a line and write the equation of a line from given information; • solve systems of two linear equations, and solve related problems that arise from realistic situations. <p>Quadratic Relations of the Form $y = ax^2 + bx + c$</p> <ul style="list-style-type: none"> • manipulate algebraic expressions, as needed to understand quadratic relations; • identify characteristics of quadratic relations; • solve problems by interpreting graphs of quadratic relations. 	<p>Each unit will be assessed by: Investigative Assignments Skills Worksheets Summative Tests Performance Tasks</p> <p>At the end of the course the final evaluation will consist of:</p> <p>Summative Assessments Performance Tasks</p>

Assessment and Evaluation Guidelines

The purpose of student assessment is to improve student learning.

Assessment and evaluation are based on the provincial expectations and levels of achievement outlined in the provincial curriculum document for each subject in secondary school. A wide range of assessment and evaluation opportunities allows students to demonstrate their learning in a variety of ways. This information provides the basis for reporting student grades on the Provincial Report Card. Achievement, reflected in a final mark, will be calculated using the following categories.

Communication (15%)	Knowledge/ Understanding (35%)	Thinking and Inquiry (15%)	Applications / Making Connections (35%)
The conveying of meaning through various oral, written, and visual forms (e.g., providing explanations of reasoning or justification of results orally or in writing; communicating mathematical ideas and solutions in writing, using numbers and algebraic symbols, and visually, using pictures, diagrams, charts, tables, graphs, and concrete materials).	Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding).	The use of critical and creative thinking skills and/or processes, as follows: • planning skills (e.g., understanding the problem, making a plan for solving the problem) • processing skills (e.g., carrying out a plan, looking back at the solution) • critical/creative thinking processes (e.g., inquiry, problem solving)	Application. The use of knowledge and skills to make connections within and between various contexts.

