

***RICHVIEW COLLEGIATE INSTITUTE***

<b>PROGRAM AREA: Mathematics</b>	<b>COURSE NAME: Foundations of Mathematics</b>
<b>COURSE CODE: MFM 1P 1</b>	<b>GRADE/LEVEL: 9</b>
<b>PREREQUISITE:</b>	<b>CREDIT VALUE: 1.0</b>

**Cost of Textbook/equipment replacement:** Text \$85, Workbook \$10  
(if lost or damaged)

**Additional Course Costs:** \_\_\_\_\_

**Textbooks(s)/Resources:** Mathematics 9, Pearson

Practice and Homework Book Math 9, Pearson (Workbook)

**COURSE DESCRIPTION:**

This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relations, and will determine the connections between the representations. They will also explore certain relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**CURRICULUM STRANDS (UNITS) and OVERALL EXPECTATIONS:**

<b>Number Sense and Algebra</b>	*	solve problems involving proportional reasoning
	*	simplify numerical and polynomial expressions in one variable,
	*	solve simple first-degree equations.
<b>Linear Relations</b> -	*	apply data-management techniques to investigate relationships between two variables;
	*	determine the characteristics of linear relations;
	*	demonstrate an understanding of constant rate of change and its connection to linear relations;
	*	connect various representations of a linear relation, and solve problems using the representations.
<b>Measurement and Geometry</b>	*	determine, through investigation, the optimal values of various measurements of rectangles;
	*	solve problems involving the measurements of two-dimensional shapes and the volumes of three-dimensional figures;
	*	determine, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems.

## **CURRICULUM STRANDS (UNITS) and OVERALL EXPECTATIONS: *(continued)***

Throughout this course, students will

- **Problem Solve**
- **Reason and Demonstrate**
- **Reflect, and apply**
- **Select Tools and Computational Strategies**
- **Connect (between mathematical concepts and procedures)**
- **Represent and determine through investigation**
- **Communicate**

### **Assessment and Evaluation**

Assessment and Evaluation are based on the expectations and levels of achievement outlined in the provincial curriculum document for each subject. 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. A final mark will be calculated using the following categories or strands.

**Formative Evaluation:** *(70% of the final mark will be based on evaluations conducted throughout the course)*

*All four achievement categories/strands do not need to be evaluated in each evaluation task.*

Communication ( 20 %)	Knowledge/Understanding ( 30 %)	Thinking and Inquiry ( 20 %)	Application/Making Connections ( 30 %)
<i>Tests/quizzes Journal entries Presentation/reports Mathematical/ conventions Assignments</i>	<i>Tests/quizzes Assignments Reports</i>	<i>Tests/quizzes Mathematical Conventions Assignments Reports</i>	<i>Tests/quizzes Mathematical Conventions Assignments Reports</i>

**Summative Evaluation:** *(30 % of the final mark will be based on a final evaluation in the form of culminating activities).*

**Components of Summative Evaluation:** 1. Examination (20%)

2. EQAO (10%)

*All four categories (knowledge, communication, applications, and TIPS) will be represented on the exam*

**\*\* A detailed explanation of the culminating activity/activities will be distributed to students in the class.**

**No student is exempt from the final evaluation.**

**Summer school is available to any student who achieves between 35% and 49%.**

**Learning Skills:** *The report card provides a record of the learning skills, demonstrated by the student in every course in the following six categories: Responsibility, Independent Work, Initiative, Organization, Collaboration, Self-Regulations. The learning skills are evaluated using a four-point scale (E-Excellent, G-Good, S-Satisfactory, N-Needs Improvement).*

**Please refer to the Student Agenda Planner for details regarding the Achievement Chart and Learning Skills**

**We believe that there is a correlation between homework completion and student success.**