



MBF3C
Foundations of Mathematics
Grade 11, College

General Course Information

Prerequisite:	Foundations of Mathematics, Grade 10, Applied
Teacher:	416-396-6793 Ext 20458
Department:	Mathematics
Extra Help:	After In-Class time or an Online Tutorial planned with your teacher
Textbook and Replacement Cost:	n/a
Required Materials:	binder, paper, scientific calculator, ruler, pencil, eraser, graph paper

Course Description

This course enables students to broaden their understanding of mathematics as a problem-solving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; develop their ability to reason by collecting, analysing, and evaluating data involving one variable; connect probability and statistics; and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

<http://www.edu.gov.on.ca/eng/curriculum/secondary/math910curr.pdf>

Assessment and Evaluation

To promote student success, ongoing assessment and feedback will be given regularly to the students. A variety of assessment and evaluation strategies will be used in this course, including tests, quizzes, group work, and presentations. Expectations will be evaluated based on the provincial curriculum expectations and the achievement levels outlined in the ministry document.

Expectations are organized into four categories. The categories and their corresponding weighting is as follows:

Knowledge and Understanding	35%	Thinking	5%
Application	20%	Communication	10%

Each student's final mark will be in the form of a percentage grade based on their achievement in the 4 categories on the achievement chart. The breakdown of the final mark is as followed:

Term Evaluation	70%	Final Culminating Activity	30%
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The final Evaluation will be completed during the final 6 weeks of the course and may include a variety of summative activities including an exam, a presentation, a seminar, or an essay or another writing assignment.

In addition to students' performance in the achievement categories, students will also be assessed on their performance in the following learning skills:

Responsibility	Organization	Independent Work
Collaboration	Initiative	Self-Regulation

For specific policies on assessment and evaluation, and academic honesty, please refer to *Code of Conduct*.

The course is organized into the following strands:

MATHEMATICAL MODELS

- make connections between the numeric, graphical, and algebraic representations of quadratic relations, and use the connections to solve problems;
- demonstrate an understanding of exponents, and make connections between the numeric, graphical, and algebraic representations of exponential relations;
- describe and represent exponential relations, and solve problems involving exponential relations in real-world applications.

PERSONAL FINANCE

- compare simple and compound interest, relate compound interest to exponential growth, and solve problems involving compound interest;
- compare services available from financial institutions, and solve problems involving the cost of making purchases on credit;
- interpret information about owning and operating a vehicle, and solve problems involving the associated costs.



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GEOMETRY AND TRIGONOMETRY

- represent, in a variety of ways, two-dimensional shapes and three-dimensional figures arising from real-world applications, and solve design problems;
- solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications.

DATA MANAGEMENT

- solve problems involving one-variable data by collecting, organizing, analysing, and evaluating data;
- determine and represent probability, and identify and interpret its applications.