

## Course Outline: Functions & Applications – University/College - MCF3M

### Course Description

This course introduces the basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric and exponential functions and their use in modelling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**Prerequisite:** Principles of Mathematics, Grade 10 Academic (MPM2D), or Foundations of Mathematics Grade 10 Applied (MFM2P).

### Units of Study

1. Introduction to Functions & Quadratic Functions
2. Trigonometry
3. Sinusoidal Functions
4. Exponential Functions
5. Personal Finance: Compound Interest & Annuities
6. Working with Quadratic Expressions
7. Representing Quadratic Functions

### Evaluation

#### Term Work – 70% of Final Mark

Tests – 55 %

Assignments/Quizzes – 15%

#### Summative Exam – 30% of Final Mark

All evaluations will reflect requirements for students to demonstrate competence in the **four learning categories**: knowledge and understanding (35%) : application (35%), thinking, inquiry and problem solving (20%) and communication (10%).

### Tests

Please let me know if you have a planned absence on the date of a test. If you are sick, be sure that your parent/guardian has notified the office and be prepared to write a similar test the day you return. If you will be writing tests in resource as part of your I.E.P. then please arrange with Mrs. Flarity and let me know as well.

## Textbook

*Functions & Applications 11* by McGraw-Hill Ryerson.

## Classroom Expectations

1. You are here to learn.
2. Come to class prepared with: **a scientific calculator, pencil, paper and your textbook.**
3. It is expected that you do your homework and make good use of time in class in order to be successful.

## Late Assignment Policy

You will complete approximately one assignment per unit. All **assignments** are due at the **beginning of class** on the due date. If you do not hand in an assignment due to a legitimate absence, **you must hand it in on your first day back at school.**

- Late assignments you will result in a deduction of 15% per day.
- Once the assignment has been taken up in class or solutions have been posted, no late assignments will be accepted. (Sometimes the solutions are posted as soon as the assignment has been collected).
- Certain due dates (i.e. final exams, culminating tasks, and some unit summative) may be non-negotiable

It is strongly recommended that assignments are completed prior to a unit test regardless of the due date.

## Course Website

This class has a website. It is at [https://sdss.bwdsb.on.ca/staff/teacher\\_sites/josh\\_elliott/MCF3M](https://sdss.bwdsb.on.ca/staff/teacher_sites/josh_elliott/MCF3M). It contains all course handouts as well as many of the notes taken in class, test solutions, etc.

## Extra Help

Help is available in the study lab (room 208) on Mondays at 11:40AM. Ask me if you would like assistance at any other time.

## Contact Information

The best way to contact me is by email at **Josh\_Elliott@bwdsb.on.ca**.