

# Henry Street High School

## MCF 3M1

Functions and Applications, Grade 11, University/College Preparation

### COURSE OUTLINE

#### COURSE DESCRIPTION

*This course introduces 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; and solve problems relating to applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.*

#### UNITS OF STUDY

- UNIT 1** – Introduction to Quadratic Functions
- UNIT 2** – Algebra of Quadratic Expressions
- UNIT 3** – Quadratic Functions in Standard and Factored Forms
- UNIT 4** – Quadratic Models in Standard and Vertex Forms
- UNIT 5** – Trigonometry and Acute Triangles
- UNIT 6** – Sinusoidal Functions
- UNIT 7** – Exponential Functions
- UNIT 8** – Solving Financial Problems

#### ASSESSMENT AND EVALUATION

##### ASSESSMENT STRATEGIES

- ❖ Unit Tests
- ❖ Quizzes
- ❖ Journals
- ❖ Investigations
- ❖ Inquiries
- ❖ Projects
- ❖ Assignments
- ❖ Final Summary Booklet
- ❖ Final Examination

##### EVALUATION

- ❖ Termwork 70%
- ❖ Final Summative Evaluation 30%

#### OTHER INFORMATION

##### CLASS REQUIREMENTS

- ❖ Textbook: Functions and Applications 11, Nelson
- ❖ Equipment: Scientific calculator, 3-ring binder, lined paper, graph paper, pencil, coloured pens or pencils, eraser, ruler, geometry set