Guelph Collegiate Vocational Institute **Upper Grand District School Board** Course Outline	**Department:** Mathematics **Course Title:** Functions and Applications **Course Type:** University/College **Grade:** 11 **Course Code:** MCF3M **Credit Value:** 1.0

Department Head: G. McMillan

Teachers: S. Rogers, B. Wilson

Teacher email: (not mandatory)

Date of Development: September 3, 2015

Curriculum Document: (copy subject-specific document from secondary curriculum website http://www.edu.gov.on.ca/eng/curriculum/secondary/) http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf (Pages 57-66)	**Course Prerequisites/Corequisites:** MPM2D or MFM2P

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

Term Work (70% of the final mark)

Unit Title	Big Ideas	Unit Culminating Tasks
Functions Through Quadratics		Unit Test
Investigating Quadratics		Unit Test
Quadratic Highs and Lows		Unit Test
Exponential Functions		Unit Test
Financial Applications		Unit Test
Acute Triangle Trigonometry		Unit Test
Trigonometric Functions		Unit Test

Culminating Tasks/Exams (30% or the final mark)

Course Culminating Task/Exams	Description
Final Exam	30%

Based on the range of students' learning needs, a selection from the strategies listed below may be utilized. Refer to list of teaching and assessment strategies.

Teaching Strategies:
- explicit teaching - demonstrations - investigations - classroom discussions - problem-solving strategies - co-operative learning - independent practice
Assessment and evaluation strategies:
- self-assessment - peer feedback - exit cards - quizzes - daily homework - observation, conference, interview - self-reflection - tests - final exam

Textbooks/Learning Resource Materials (align with Policy 603)
Functions and Applications 11 (Nelson)

Fees for Learning Materials/Activities

Learning Materials/Activities	**Cost**
None	

Please refer to the GCVI Student Handbook for our school policies on:

- academic integrity
- late and missed assignments