

St. Peter Catholic High School
Math Department
MCF3M – Functions and Applications



Course Summary Sheet

Prerequisite: Principles/Foundations of Mathematics, Grade 10, Academic/Applied

Description

This course introduces some financial applications of mathematics and extends students' experiences with functions. Students will solve problems in personal finance involving applications of sequences and series; investigate properties and applications of trigonometric functions; develop facility in operating with polynomials, rational expressions, and exponential expressions; develop an understanding of inverses and transformations of functions; and develop facility in using function notation and in communicating mathematical reasoning.

Graphing Calculators are an integral part of the Mathematics curriculum and an aid to student learning. In grades 11 and 12, if you own a graphing calculator, you are encouraged to use it in your math course, during learning and on most assessments.

Overall Course Expectations or Topics

Unit 0 - Review of Skills

Chapter 1 - Introduction to the Quadratic Function

Chapter 2 - The Algebra of Quadratic Expressions

Chapter 3 - Working with Quadratic Functions: Standard and Factored Forms

Chapter 4 - Working with Quadratic Models: Standard and Vertex Forms

Chapter 5 - Trigonometry and Acute Triangles

Chapter 6 - Sinusoidal Functions

Chapter 7 - Exponential Functions

Chapter 8 - Solving Financial Problems Involving Exponential Functions

Course Resources Functions and Applications 11 (Nelson) - replacement cost is \$85.00

Required Materials to meet with success in this course

- Binder, Pencils, Pens, Ruler, Loose leaf paper, Graph paper and Scientific Calculator

Report Card Grade

The Report Card grade is based on evidence collected through observations, conversations, and student products (tests/exams, assignments for evaluation).

Some evidence will carry greater weight than other evidence. Determining a report card grade will involve professional judgment and interpretation of evidence that reflects the student’s most consistent level of achievement, with special consideration given to more recent evidence.

Mark Breakdown

Term Work - 70 %

Term work is based on a variety of performance tasks over the course of the term that demonstrates: knowledge, thinking, communication, and application. For this course, the term mark is assessed as follows:

Summative - 30%

The summative evaluation must take place completely in class and may take the form of a final exam, or a variety of summative performance tasks and/or student portfolios that demonstrate the comprehensive achievement of the overall course expectations and the four areas of the achievement chart (knowledge, thinking, communication, and application). For this course, the final 30% is assessed as follows:

Final Exam.....20%

Rich Summative Task.....10%

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Student and Parent/Guardian Acknowledgement

We have read the above course outline and are aware of the student responsibilities to attend class on a regular basis and to provide evidence of learning within the established timelines.

Student's Name (print): _____

Student's Signature _____

Parent/Guardian Name (print): _____

Parent/Guardian Signature: _____

Parent or Student Comments or Expectations for this course (optional):