

# ST. JOSEPH CATHOLIC SECONDARY SCHOOL

## COURSE OUTLINE



**Name of Course/Course Code: Principles of Mathematics Grade 9, Academic MPM1D**

### **Course Description:**

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

### **Catholic Graduate Expectations:**

The mind and its capacity for rational analysis are seen as gifts from the Creator to be used and enjoyed. The training of the intellect ensures that all knowledge can be scrutinized and the divine and the human more deeply understood. In this sense, knowledge is illuminated with the light of faith. In Catholic education, the commitment to maturity of mind and academic excellence is always in reference to God's revealed wisdom as to life's purpose and meaning.

**Course Prerequisite: A grade of 70% or higher in Grade 8 Mathematics is strongly recommended.**

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**Units of Study**

Unit 1	Polynomials
Unit 2	Equations
Unit 3	Relations
Unit 4	Modelling With Graphs
Unit 5	Analyze Linear Relations
Unit 6	Geometric Relationships
Unit 7	Measurement Relationships
Unit 8	Optimization

**Evaluation**

70%	30%
Knowledge/Understanding	Culminating Task and Exam
Thinking/Inquiry	
Communication	
Application	

**Course Resources Required:**

- Scientific Calculator
- Ruler
- Pencil
- Eraser
- Binder with paper
- Graph Paper
- Textbook (Provided)

For a detailed course description of this course, please visit  
<https://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.htm>