**St. Joseph Secondary School**
**Department of Mathematics**

**Course Code:** MFM 1P1
**Course Name:** Foundations of Mathematics
**Level:** Grade 9 Applied

**Student's Name:** _____

**Textbook #:** _____

**Course Description:** This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relations, and explore two-dimensional figures and three-dimensional objects. Students will consolidate their mathematical skills by solving problems and communicating their thinking.

## Overall Course Expectations or Strands:

- solve problems involving proportional reasoning;
- simplify numerical and polynomial expressions in one variable, and solve simple first-degree equations.
- apply data-management techniques to investigate relationships between two variables;
- determine the characteristics of linear relations;
- demonstrate an understanding of constant rate of change and its connection to linear relations;
- connect various representations of a linear relation, and solve problems using the representations.
- determine, through investigation, the optimal values of various measurements of rectangles;
- solve problems involving the measurements of two-dimensional shapes and the volumes of three-dimensional figures;
- determine, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems.

**Ontario Catholic School Graduate Expectations (Vision of the Learner):**
The graduate is expected to be:
**1. A discerning believer**
**2. An effective communicator**
**3. A reflective, creative and holistic thinker**
**4. A self-directed, responsible, lifelong learner**
**5. A collaborative contributor**
**6. A caring family member**
**7. A responsible citizen**

**Efforts will be made to meet the individual learning needs of students to promote student success with respect to meeting the expectations of this course.**

My signature below indicates that I have read the Course Handout, and I am in agreement with its contents.

**Parent's/Guardian's Signature:** _____ **Date:** _____

**Student's Signature:** _____ **Date:** _____

## Course Timeline:

**Unit 1**: 2D and 3D Measurement
**Unit 2**: Plane Geometry
**Unit 3**: Exploring Relationships – Lines and Curves of Best Fit
**Unit 4**: Rate, Ratio, and Proportion
**Unit 5**: Linear Relations
**Unit 6**: Multiple Representations of Linear Relations
**Unit 7**: Algebraic Models
**Unit 8**: Measurement Optimization

Culminating Performance Tasks will be administered towards the end of the course and will be weighted at 30% of the final mark. These tasks are specifically itemized below.

| | |
|---|---|
| **Culminating Performance Task (CPT)** | **15%** |
| **EQAO Assessment (Final Exam)** | **15%** |

All timelines as stated are approximate.

## Resources:

The course will use a variety of resources which will be distributed to students during the first week of the course. The workbook and all other resources assigned to each student are the responsibility of the student.

**Resources for this course include:**

NELSON – Applied Mathematics 9

**Any damage incurred will result in payment for replacement.**

## Evaluation Policies

1. Student marks will be determined by evaluating process & product according to 4 categories (see below) & 4 levels of the Achievement Chart as found in the Ministry Policy document for the Mathematics Department.

   **Evaluation Structure:**

   | | |
   |---|---|
   | **Knowledge/Understanding** | **30%** |
   | **Application** | **30%** |
   | **Communication** | **20%** |
   | **Thinking** | **20%** |

   **Term Evaluations = 70% of the final mark.** **Final Evaluation = 30% of the final mark.**

   **Final Evaluations will include:** Culminating Performance Task (CPT) 15%,
   EQAO Assessment (Final Exam) 15%

2. Feedback will also be provided for student **learning skills:** Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation are assessed apart from student achievement in the four categories outlined above and will conform to the coding:

   **E – Excellent** **G – Good** **S – Satisfactory** **N - Needs Improvement**

3. **Assignments** submitted after the due date established by the teacher will receive a penalty **in accordance with our Board Assessment & Evaluation Policy Document** as outlined in the student agenda.

4. Should a student miss an evaluation due to a legitimate absence, **in accordance with our Board A&E Policy Document**, the student and teacher will make arrangements to address the missed evaluation in a timely manner. In the cases of **extended vacation** or **prolonged absence**, consultation with the appropriate administrator is required.

5. In the event that the student does not make up the missed evaluation(s), a zero may be assigned. If it is determined that the evaluation(s) has/have been missed as a result of a skip/truancy or has/have been plagiarized, a zero may be assigned.

6. For all other cases of absence and/or missed evaluations (including absence during the final examination period), please refer to our Board A&E Policy as outlined in the student agenda.

**May God bless your efforts this semester!**