

### Sec 3 Mathematics

Instructor: Ms. Shannon Short

Class Schedule: Monday - Friday, 10h45 - 15h35 (Break 11h45 – 12h30)

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<i>Tentative Schedule</i>	
<b>March 2024</b>	
<b>Date</b>	
25	MTH-3053: Geometric Representation – <b>L1</b> – Difference between Expressions and Equations. Combining Like Terms. Simplifying Algebraic Expressions containing Exponential Numbers and Radicals. Substitution Practice. (see 3051)
26	MTH-3053: Geometric Representation – <b>L2</b> – Laws of Exponents to Simplify Exponential Expressions.
27	MTH-3053: Geometric Representation – <b>L3</b> – Exponential Expressions cont'd. Scientific Notation. Laws of Radicals to Simplify Expressions with Radicals
28	MTH-3053: Geometric Representation – <b>L4</b> – Operations on Polynomials. Factoring Polynomials (Greatest Common Factor Method)
29	NO SCHOOL – GOOD FRIDAY
<b>April 2024</b>	
1	NO SCHOOL – EASTER MONDAY
2	MTH-3053: Geometric Representation – <b>L6</b> – Solving using Pythagorean Theorem for Right Triangles. <del>Two Special Right Triangles.</del>
3	MTH-3053: Geometric Representation – <b>L5</b> – Multiplying Two Binomials (FOIL). Using Substitution and Solving to Find the Algebraic Expression Representing Perimeter and Area of 2D Shapes.
4	MTH-3053: Geometric Representation – <b>L7</b> – Representations/Drawings of 3D Solids using Projections: Central Projections (Perspectives with One and Two Vanishing Points), Parallel Projections (Oblique and Axonometric Perspectives), Orthogonal Projections (Top, Front, Side View/Perspective)
5	In-class assignment
8	MTH-3053: Geometric Representation – <b>L8</b> – MINI-DAY Metric Unit Conversions. Prisms versus Pyramids and <del>Their Nets</del> AND Take-up In-class assignment
9	MTH-3053: Geometric Representation – <b>L9</b> – Volume and Surface Area 1: Prisms and Cylinders
10	MTH-3053: Geometric Representation – <b>L10</b> – Volume and Surface Area 2: Pyramids and Cones
11	MTH-3053: Geometric Representation – <b>L11</b> – Volume and Surface Area 3: Spheres and Decomposable Solids
12	MTH-3053: Geometric Representation – <b>L12</b> – Volume and Surface Area 4: Composite Solids
15	In-class assignment
16	MTH-3053: Geometric Representation – <b>L13</b> – Similarity and Equivalence 1
17	Take-up In-class assignment

18	MTH-3053: Geometric Representation – <b>L14</b> – Similarity and Equivalence 2
19	<b>NO SCHOOL – PEDAGOGICAL DAY</b>
22	Practice Pre-Test
23	<b>Pre-Test</b>
24	Take-up Pre-Test
25	Practice Pre-Test
26	<b>Exam</b>
29	MTH-3051: Algebraic and Graphical Modelling – <b>L2</b> – Algebra Review: Simplifying Expressions. Solving Equations with One Unknown. Multi-step Solving
30	MTH-3051: Algebraic and Graphical Modelling – <b>L3 a)</b> – Solving Cont'd with Cross Multiplying and Fractional Equations. Polygon Review. Translating Words into Equations with Unknowns. Difference between Sum and a Number More Than, etc.
<b>MAY 2024</b>	
1	MTH-3051: Algebraic and Graphical Modelling – <b>L3 b)</b> Translating Words into Equations with Unknowns Cont'd. Using Substitution to Make one Equation with one Unknown. Using Substitution Method to Solve Mini-Tasks.
2	MTH-3051: Algebraic and Graphical Modelling – <b>L4</b> –Introduction to Inequalities and Interval Notation to Represent Sets of Numbers. Reading Inequalities, Translating Sentences into Inequalities, and Graphing Inequalities on the Number Line. Expressing Inequalities in Interval Notation.
3	MTH-3051: Algebraic and Graphical Modelling – <b>L5</b> – Main Types of Number Sets. Expressing Inequalities in Algebraic, Graphical, Interval, or Set-Builder Notation. Solving Inequalities.
6	MTH-3051: Algebraic and Graphical Modelling – <b>L6</b> – Translating Words into Inequalities with Unknowns, Tasks Involving Inequalities and (try to get to next time, maybe, Linear Functions) <b>AND L7</b>
7	<b>In-Class Assignment AND Creation of Memory Aid</b>
8	MTH-3051: Algebraic and Graphical Modelling – <b>L7</b> – Functions and Relations (Next time don't do properties here --- start with Linear Function so that then we can practice properties a whole lot only for Linear Functions and with a Context)
9	MTH-3051: Algebraic and Graphical Modelling – <b>L7</b> – Functions and Relations (Next time don't do properties here --- start with Linear Function so that then we can practice properties a whole lot only for Linear Functions and with a Context) <b>AND L8 AND take-up in-class assignment</b>
10	MTH-3051: Algebraic and Graphical Modelling – <b>L8</b> – Discovering Linear Functions/Graphing Real Life Example using a Linear Functional Model. Identifying Rate of Change (a) in an Equation and Identifying its Units. Understanding the Initial Value of a Linear Function (b) and Identifying other Properties.
13	MTH-3051: Algebraic and Graphical Modelling – <b>L9</b> – Understanding and Calculating Rate of Change (a). Calculating the Initial Value of a Linear Function. Stating the Rule of a Linear Function.

\*\*In-class assignment due

14	MTH-3051: Algebraic and Graphical Modelling – <b>L10</b> – Graphing Linear Functions using Slope/y-intercept method. Short Word Questions Involving Linear Functions. Discovering/Graphing Rational Functions (NEXT TIME change the discovery of rational function --- don't want c) part)
15	<b>In-Class Assignment AND Creation of Memory Aid</b>
16	MTH-3051: Algebraic and Graphical Modelling – <b>L11</b> – Determining the Rule of Rational Functions. Short Word Questions Involving Rational Functions. <del>The Inverse of Functions</del> and More Explicit Knowledge Questions Involving Linear Functions
17	<b>NO SCHOOL – PEDAGOGICAL DAY</b>
20	<b>NO SCHOOL – VICTORIA DAY</b>
21	Take-up In-Class Assignment
22	MTH-3051: Algebraic and Graphical Modelling – <b>L12</b> – Solving Systems using Comparison Method. Task Involving the Point of Intersection between Two Linear Functions.
23	MTH-3051: Algebraic and Graphical Modelling – <b>L13</b> – Tasks Involving Linear Functions and Inequalities and Review
24	Practice Pre-test
27	<b>Pre-test</b>
28	Take-up Pre-test
29	Practice Pre-test
30	<b>TRIP to Québec City (for SCNC)</b>
31	<b>EXAM</b>
<b>June 2024</b>	
3	MTH-3052: Data Collection – <b>L1</b> – Intro to Data Collection and Definitions. Bias and Sampling Methods. Organizing Distributions of Raw Data into Condensed Data Tables with Frequency and Relative Frequency
4	MTH-3052: Data Collection – <b>L2</b> – Constructing Tables of Condensed Data Grouped into Classes. Reading and Constructing Histograms. Reading Bar and Circle Graphs. Determining the Measures of Central Tendency (Mean, Median, and Mode) of a Distribution. Determining a Measure of Dispersion (Range). Determining Weighted Mean.
5	MTH-3052: Data Collection – <b>L3</b> – Solving for an Unknown in a Weighted Mean Question. Determining Mean, Median, and Mode of Distributions in Condensed Data Tables.
6	MTH-3052: Data Collection – <b>L4</b> – Quartiles and Box-and-Whisker Plot
7	MTH-3052: Data Collection – <b>L5</b> – Statistical Tasks
10	<b>In-Class Assignment AND Creation of Memory Aid</b>
11	MTH-3052: Data Collection – <b>L6</b> – Probability Definitions. Representing a Random Experiment (R.E.) with a Tree Diagram. Using the Multiplication Principle to Determine the Number of Outcomes in a R.E. Using A Probability Tree Diagram to Calculate the Probability of an Event (with or without Replacement)
12	MTH-3052: Data Collection – <b>L7</b> – Multiplication Principle for a R.E. without Replacement (i.e. Permutations). Probability Questions in a Geometric Context

\*\*In-class assignment due

	with Lengths or with Areas. Probability Task Questions for multi-step Random Experiments.
13	MTH-3052: Data Collection – L8 – Solving for Unknowns in Geometric Probability Questions. Warm-up to Tasks with Modified Targets.
14	Take-up In-Class Assignment AND more probability task practice
17	MTH-3052: Data Collection – Pre-test
18	MTH-3052: Data Collection – Take up Pre-Test and Review
19	MTH-3052: Data Collection – Practice Pre-test
20	MTH-3052: Data Collection – Practice Pre-test
21	MTH-3052: Data Collection – EXAM
24	NO SCHOOL – LA SAINT JEAN
25	Marks Pick-Up
26	Marks Pick-Up
27	Marks Pick-Up
28	Marks Pick-Up

**DESCRIPTION OF ASSESSMENTS (0% of final mark)**  
**[All students to be present in class]**

**IN-CLASS ASSIGNMENTS:** Sometimes a partial, sometimes a full version of a pre-test that can be completed with reference to class notes. Students may work on the assignment alone, with peers, with the answer key, and/or with the help of the teacher. Students may start the assignment during class and finish it at home. Students may choose to hand it into the teacher for some written feedback before the test is taken-up in class. The in-class assignment will not be marked.

**PRE-TESTS:** Leading up to the exam, pre-tests are to be completed with reference only to a student-made memory-aid. Pre-tests are an opportunity to assess a student’s readiness for a final exam. Pre-tests are to be written during class time and handed in. The pre-test will be marked.

**PRACTICE PRE-TESTS:** Practice pre-tests are additional versions of pre-tests. Students may work alone, with peers, with the answer key and/or with the teacher to practice and to ask remaining questions about course concepts before the exam. Students may start the practice pre-tests during class and continue studying with it at home. The practice pre-test will not be marked. *nota bene:* no questions are allowed right before an exam.

**DESCRIPTION OF EVALUATION (100% of final mark)**  
**[All students to be present in class]**

**EXAMS:** Divided into two parts: Explicit Knowledge (20% of final mark) and Complex Tasks (80% of final mark). To be completed with reference only to a student-made memory aid (one side of an 8x11 paper).

**Required for Math/Academic Success**

- Buying a protractor and graph paper

\*\*In-class assignment due

- Purchasing the textbook (for this course, there are three textbooks that can be purchased at the school's bookstore: MTH 3051, MTH 3052, MTH 3053)
- Taking detailed/reformulated notes
- Organizing notes and handouts in a **3-ring binder** with dividers
- Consulting a dictionary to define unknown words
- Using adequate tools (graph paper, ruler, geometry set, pencils, colours [all found at *Jean Coutu* or *Bureau en gros*])
- Eliminating distractions (use of a cell phone is highly discouraged in class)
- Arriving on time and being properly rested