

Applied 40S (Grade 12 Applied Mathematics)

Description

Grade 12 Applied Mathematics (40S) is intended for students considering post-secondary studies that do not require a study of theoretical Calculus. It is context-driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. The primary goals of Applied Mathematics are to have students develop critical-thinking skills through problem solving and through modelling real-world situations mathematically to make predictions.

Prior knowledge required for this course will include (but not be limited to) the following skills: graphing on a Cartesian plane, multi-step algebra, etc. Students are recommended to review these skills prior to starting the course, particularly if they have not taken a math course in a while.

This is a very fast moving and demanding course, with multiple graded items due each week. It is imperative that students log in daily, for at least an hour each day. Students work through the lessons independently and can email the teacher with questions. A significant amount of work will be required to complete the lessons, practice material and prepare for assessments in this course. Due dates are set for all assignments and tests to help students stay on track and increase success.

Modules

The course is organized into the following topics.

- Personal Finance (Borrowing & Investing)
- Polynomial Functions
- Logarithmic & Exponential Functions
- Sinusoidal Functions
- Logic
- Probability
- Permutations and Combinations
- Design and Measurement

Evaluation

Assignments 35 %

Tests 45 %

Provincial Exam 20%

Materials

- Computer or Laptop
 - It is best to complete the course on a computer instead of a mobile device.
- Graphing Calculator and TVM solver
 - [Desmos](#) and this [TVM Solver from Geogebra](#) are recommended as they are both free, but physical graphing calculators (such as the TI-84) are good options also
- Lined paper, Pencil, and Eraser
 - Regular practice is required to master math skills. This is best completed on paper to encourage clear notation. Many assignments and tests will also require writing out processes by hand.
- Optional: Printer
 - Fill-in notes are provided for some video lessons. These may be downloaded and saved electronically or printed to be used while watching the videos.