

Foundations of Mathematics 12

Overview of the course:

Foundations of Mathematics 12 is a continuation of Foundations of Mathematics 11 course. As such, the course is intended for students who plan to enter post-secondary education in a field of study which may require some mathematical thinking, but which does not require knowledge of Calculus. Logical thinking and problem solving skills continue to be emphasized through analysis of puzzles and strategy games.

Intended topics of the course:

- Analysis of logical statements using truth tables and Venn diagrams.
- Introduction to Set Theory with problem solving applications.
- Combinatorics and counting problems with applications to Probability.
- Polynomial, Exponential, Logarithmic and Sinusoidal functions. Graphs, global behaviour, general characteristics. Use of spreadsheet software and graphing calculators for data regression.
- Financial Mathematics. Analysis of loans and investments, cost-benefit analysis, mortgages and credit cards. Use of technological aids is emphasized throughout.