

Foundations of Mathematics 11

Overview of the course:

Foundations of Math 11 is intended for students who wish to pursue post-secondary study in fields which may require some mathematics, but do not require knowledge of Calculus. Logical thinking and use of problem-solving strategies are emphasized throughout the course. The students will be required to complete a research project. In order to be successful, students are expected to allocate an average of 30 to 45 minutes of individual work a day.

Intended topics of the course:

- Logical Reasoning with applications to plane geometry.
- Trigonometry of non-right triangles, with an emphasis on problem solving.
- Statistical Reasoning; making judgements about a data set based on mean, median, mode, range and standard deviation. Introduction to the Normal Distribution, its characteristics and some basic applications.
- Proportional Reasoning, with an emphasis on unit analysis and problem solving.
- Quadratic functions and equations; graphing, using equations to model real-world type problems.
- Linear inequalities; using systems of inequalities to model various situations, introduction to basic linear programming.