

## **Pre-Calculus 12**

### ***Course Overview:***

This course is designed for students who intend to attend post-secondary education institutions in fields such as Engineering, Sciences, Computer Sciences and others, where the study of Calculus is a requisite. The course is an in-depth study of functions and of some particular classes of functions such as Trigonometric functions or Exponential and Logarithmic functions.

During the course, students will experience intense problem solving processes as well as extensive algebraic manipulation of mathematical expressions. Students will also need to be able to use technology for solving problems. Students will be encouraged to work in small groups as well as individually on their assignments.

To be successful in this course, students need a strong background in Algebra and Trigonometry, good reading skills, as well as the will to spend at least an hour a day on individual study at home.

### ***Intended topics of the course:***

1. Transformations of Functions
2. Sequences and Series
3. Exponential and Logarithmic Functions
4. Trigonometry: Functions, Equations, Identities
5. Rational Functions.
6. Conic Sections.