# PRE-CALCULUS 11

**COURSE OUTLINE**

2013-2014

**TEACHER:** Jill Johnston

**TEXTBOOK:** Pre-Calculus 11(McGraw-Hill Ryerson)

**WEBSITE:** <http://jmh.nbed.nb.ca/teacher/mrs-johnston>

**PRE-REQUISITE COURSE:** Foundations of Mathematics 11

**COURSE DESCRIPTION:**

This course, followed by later courses in Pre-Calculus and Calculus, is designed for entry into post-secondary programs requiring Pre-Calculus. Students demonstrate an understanding of absolute value of real numbers, and solve problems that involve radicals, radical expressions, and radical equations. Students determine equivalent forms, simplify rational expressions, and solve problems that involve rational equations. They develop an understanding of angles in standard position ($0°to360°$) and solve problems for these angles using the three primary trigonometric ratios. Polynomial expressions are factored and absolute value functions and quadratic functions are analyzed and graphed. Students solve problems that involve quadratic equations and solve, algebraically and graphically, problems that involve systems of linear-quadratic and quadratic-quadratic equations in two variables. They also solve problems that involve linear and quadratic inequalities in two variables, and quadratic inequalities in one variable.

*This course is a pre-requisite for* ***Pre-Calculus 12A****.*

**MATERIALS REQUIRED:**

* Scientific Calculator
* Binder
* Pencil / Eraser
* Graph paper
* Ruler
* Protractor

**TOPICS:**

* Quadratics (Chapters 3 & 4)
* Functions and Equations (Chapters 5, 6 & 7)
* Systems of Equations and Inequalities (Chapters 8 & 9)
* Trigonometry (Chapter 2)

**EVALUATION:**

Homework / Assignments 10%

Quizzes 20%

Tests 40%

Exam 30%