PreCalculus Math 11 **Mrs. Buck**
Course Outline

Learning Outcomes:

Algebra and Number

A1 Demonstrate an understanding of the absolute value of real numbers
A2 Solve problems that involve operations on radicals and radical expressions with numerical and variable radicands
A3 Solve problems that involve radical equations (limited to square roots)
A4 Determine equivalent forms of rational expressions (limited to numerators and denominators that are monomials, binomials or trinomials)
A5 Perform operations on rational expressions (limited to numerators and denominators that are monomials, binomials or trinomials
A6 Solve problems that involve rational equations (limited to numerators and denominators that are monomials, binomials, or trinomials)

Trigonometry

B1 Demonstrate and understanding of angles in standard position (0 to 360)
B2 Solve problems using the three primary trigonometric ratios for angle from 0 to 360 in standard position
B3 Solve problems using the cosine law and sine law, including the ambiguous case

Relations and Functions

C1 Factor polynomial expressions
C2 Graph and analyze absolute value functions (limited to linear and quadratic functions) to solve problems
C3 Analyze quadratic functions in graphing form and determine the vertex, domain and range, direction of opening, axis of symmetry, and x- and y-intercepts
C4 Analyze quadratic functions in standard form to identify characteristics of the corresponding graph including vertex, domain and range, direction of opening, axis of symmetry, and x- and y-intercepts and to solve problems
C5 Solve problems that involve quadratic equations
C6 Solve, algebraically and graphically, problems that involve systems of linear-quadratic and quadratic-quadratic equations in two variables
C7 Solve problems that involve linear and quadratic inequalities in two variables
C8 Solve problems that involve quadratic inequalities in one variable
C9 Analyze arithmetic sequences and series to solve problems
C10 Analyze geometric sequences and series to solve problems
C11 Graph and analyze reciprocal functions (limited to the reciprocal of linear and quadratic functions)

Assessment:

- Learning Activities: You will be assessed using one or more of the following types of activities: text assignments, worksheets, problems, projects, reflection writings, quizzes, and tests.
- There will be two types of assessment: (1) student ability to understand the prescribed learning outcomes and (2) student effort
- (1) Two types of assessment of understanding will take place:
    - Formative assessment: All assigned work is designed to help you understand the concepts within the course. Practice assignments will not count towards your final grade but they are required work.
    - Summative assessment: Assessments such as tests and projects will count towards your final grade. You will always be told when an assessment is summative and will have an effect on your final grade. You may be required to complete a minimum amount of practice to demonstrate your readiness before completing the summative assessment.
- (2) Effort will be assessed using the rubric available to students and parents on JupiterGrades at https://jupitergrades.com/login/ and Mrs. Buck's Math website at http://mrsbuckmath.weebly.com
- Every learning outcome will be assessed at least twice. JupiterGrades uses the most recent assessment to calculate the final grade. If the most recent assessment is lower than the first but within 10% then you may ask Mrs. Buck to omit the most recent assessment. If the most recent assessment is lower than the first but by more than 10% then you may ask Mrs. Buck to average the two results. If you do not make the request for either of these changes before the marks are submitted to the office then JupiterGrades will use the most recent, and possibly lower, mark for its calculations.

Tools needed: Textbook, binder and paper, graph paper, pencils, graphing calculator, eraser, and ruler.

Graphing Calculator: You will need a graphing calculator for this course. If you are purchasing a graphing calculator, please see Mrs. Buck for suggestions. Please discuss with Mrs. Buck if you do not have a graphing calculator and do not plan to buy one so alternate arrangements will be made.

Course guidelines:

- The concepts of this course are more easily remembered if they are learned, not just memorized. This is best achieved through practice so complete all activities and assignments.
- Text assignments are not assigned a mark but are needed for practice. We will discuss homework assignments during class time.
- If you are absent, it is your responsibility to find out what you missed and complete the work. Missed assignments can be retrieved from Mrs. Buck during class or by emailing her at tbuck@sd73.bc.ca.

Classroom rules:

- Please ensure you arrive on time and keep washroom visits to a minimum. Also, please do not leave the classroom without permission from Mrs. Buck.
- Your behaviour should in no way interfere with the learning of any student within the class, including yourself.
- Your effort mark will be determined by the rubric posted on JupiterGrades and Mrs Buck's website (see above for addresses).
- Please attend class regularly. High achievement is difficult to attain when your attendance is low.
- Please do not write in the textbook or on the classroom furniture.
- Please use the garbage can and recycle boxes for the appropriate items.
- Eating and drinking is not allowed in the classroom. If you are ill, please request permission from Mrs. Buck to have a bottle of water (with a cap).
- Please keep electronics such as ipods and cell phones off and out of sight in the classroom.

Parental contact: I will be using JupiterGrades to compile marks. It is an online program so students and parents can access marks on the Internet at any time. This can be accessed by both students and parents at https://jupitergrades.com/login/. As well, students and parents may call me at 250-674-3328 or email tbuck@sd73.bc.ca to discuss individual progress.