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**Course:** Pre-calculus 12  
**Teacher:** Mr. Francis Tsen  
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**Course Length:** 10 months  
 (approx 120 hours)

### Course Curriculum

The curriculum for this course is build around these Big Ideas

Using inverses is the foundation of solving equations and can be extended to relationships between functions.

Understanding the characteristics of families of functions allows us to model and understand relationships and to build connections between classes of functions.

Transformations of shapes extend to functions and relations in all of their representations.

Students are expected to know the following:

- transformations of functions and relations
- exponential functions and equations
- geometric sequences and series
- logarithms: operations, functions, and equations
- polynomial functions and equations
- rational functions
- trigonometry: functions, equations, and identities

**Mark Weighing**

Category	Weighing
Assignments	25%
Projects	10%
Unit Tests	45%
Midterm and Final	20%

**Resources**

- Textbook not required.
- A graphing calculator is required.

**Course Content**

*Completion of items in boldface and underlined will activate a student in this course*

Units	Formative Assessment	Summative Assessment
<b><u>1: Transformations</u></b>	<b><u>1 assignments</u></b>	1 Unit Test
2: Graphing Radical and Rational Functions	1 assignment	1 Unit Test
3: Polynomials	1 assignment	1 Unit Test
4: Exponents and Logarithms	1 assignment	1 Unit Test
Midterm and Project 1		
5: Circular Functions	1 assignment	1 Unit Test
6: Trigonometric Equations and Identities	1 assignment	1 Unit Test
7: Conics	1 assignment	1 Unit Test
8: Sequences and Series	1 assignment	1 Unit Test
Final Exam and Project 2		

**Students are expected to:**

- contact the teacher by instant messaging, email or phone when help is needed or questions arise
- be actively engaged and submitting work on a regular basis
- inform the teacher when they will be inactive for two or more weeks.
- be aware that if they are inactive in a course for four or more weeks they may be removed from that course
- check their email at least twice a week
- create and submit completed solutions for all activities in the unit/chapter before requesting a test.
- cite all sources properly
- answer in their own words
- check that their work and tests have been marked.
- make time available to come in to Burnaby Online to write tests.
- make appointments to write tests at least 2 school days in advance.