



**Address:** 8580 16th Ave, Burnaby, BC, V3N 1S6  
**Telephone:** (604) 296-6940  
**Fax:** (604) 296-6941  
**Toll Free:** 1-888-479-8882

**Website:** <https://online.burnabyschools.ca/>  
**Information** [online.info@burnabyschools.ca](mailto:online.info@burnabyschools.ca)  
**Registration** [register.online@burnabyschools.ca](mailto:register.online@burnabyschools.ca)

**Course:** Foundations of Mathematics 12

**Course Length:** 10 months  
(approx. 120 hours)

**Teacher:** Ms. Leila Dianati

**Email:** [Leila.dianati@burnabyschools.ca](mailto:Leila.dianati@burnabyschools.ca)

**Phone:** 604 760-1686

### Course Curriculum

The curriculum for this course is built around the following Big Ideas:

|  |   |  |  |
|--|---|--|--|
| <p><b>Probabilistic thinking</b> informs decision making in situations involving chance and uncertainty.</p>   | <p><b>Modelling data</b> requires an understanding of a variety of functions.</p> | <p>Mathematical analysis informs financial <b>decisions.</b></p> | <p>Through <b>explorations</b> of spatial relationships, we can develop a geometrical appreciation of the world around us.</p> |
| <p><i>Building on these Big Ideas, Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li>• geometric explorations:             <ul style="list-style-type: none"> <li>□ <b>constructions</b></li> <li>□ <b>conics</b></li> <li>□ <b>fractals</b></li> </ul> </li> <li>• graphical <b>representations</b> of polynomial, logarithmic, exponential, and sinusoidal functions</li> <li>• <b>regression analysis</b></li> <li>• <b>combinatorics</b></li> <li>• <b>odds, probability</b>, and expected value</li> <li>• <b>financial planning</b></li> </ul> |   |  |  |

### Mark Weighing

| Category    | Weighing |
|-------------|----------|
| Assignments | 35%      |
| Project     | 25%      |
| Unit Tests  | 40%      |

**Resources**

- A textbook is not required for this course.
- A graphing calculator (Suggested: TI-83Plus)

Students may want to use an online graphing calculator or an emulator on their phone, but will need to borrow one to write tests.

**Course Content**

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

| <b>Units</b>                             | <b>Formative Assessment</b>      | <b>Cumulative Assessment</b> |
|--|----------------------------------|------------------------------|
| 1: Financial Planning                    | <b>1 assignment</b><br>1 project | 1 Unit test                  |
| 2: Deleted                               |                                  |                              |
| 3: Combinatorics                         | 1 assignment                     | 1 Unit test                  |
| 4: Probability                           | 1 assignment                     | 1 Unit test                  |
| 5: Conics                                | 1 assignment<br>1 project        | 1 Unit test                  |
| 6: Polynomial Functions                  | 1 assignment                     | 1 Unit test                  |
| 7: Exponential and Logarithmic Functions | 1 assignment                     | 1 Unit test                  |
| 8: Sinusoidal Functions                  | 1 assignment<br>1 project        | 1 Unit test                  |
| 9: Geometric Exploration                 | 1 assignment<br>1 project        | 1 Unit test                  |

**Students are expected to:**

- contact the teacher by 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 appointments to write tests at least 2 school days in advance.