



## Course: Foundations of Mathematics 11

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### **Course Description:**

This course is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in the arts or the humanities. Topics include financial mathematics, geometry, measurement, logical reasoning, relations and functions, statistics and probability.

### **Overarching inquiry questions:**

To what extent does mathematics describe the real world? How do mathematical relationships help us to identify regularities and make predictions?

### **Course Expectations:**

It is expected that students will:

- Abide by the student Code of Conduct
- Adhere to the Academic Honesty policy
- Respect yourself and others
- Attend every class and be punctual
- Inquire, think, and participate to the best of your individual ability
- Access technology in class for learning purposes only & only when instructed to do so
- Challenge yourself and have fun learning

*Seycove Learning policies can be accessed at:*

[https://www.sd44.ca/school/seycove/About/agenda/Documents/Seycove%20Agenda%20Book%202018-2019%20\(final\).pdf](https://www.sd44.ca/school/seycove/About/agenda/Documents/Seycove%20Agenda%20Book%202018-2019%20(final).pdf)

### **Evidence of Learning**

### **What the students will KNOW:**

- angle relationships
- graphical representations of quadratic functions
- graphical solutions to systems of equations
- solving systems of linear inequalities
- trigonometry with oblique angles
- applications of probabilities and statistics in the real world.

### **What the students will DO:**

Reasoning and modelling

- Model with mathematics in situational contexts
- Develop thinking strategies to solve puzzles and play games
- Explore, analyze, and apply mathematical ideas using reason, technology, and other tools



Understanding and solving

- Develop, demonstrate, and apply conceptual understanding
- Visualize to explore and illustrate mathematical concepts and relationships
- Apply flexible and strategic approaches to solve problems

Communicating and representing

- Explain and justify mathematical ideas and decisions in many ways
- Represent mathematical ideas in concrete, pictorial, and symbolic forms
- Use mathematical vocabulary and language to contribute to discussions in the classroom
- Take risks when offering ideas in classroom discourse

Connecting and reflecting

- Reflect on mathematical thinking
- Connect mathematical concepts with each other, with other areas, and with personal interests
- Use mistakes as opportunities to advance learning

**What the students will UNDERSTAND:**

What the students will understand:

- Proportional comparisons can be made among triangles and angles.
- Quadratic functions and systems of equations can be represented in many connected ways.
- Logical reasoning helps us discover and describe mathematical truths.
- A statistical analysis allows us to notice trends and relationships.  
problems.

**Evaluation:** based on performance standards and criteria

Learning Activity	Percentage of final Mark
<ul style="list-style-type: none"><li>• Chapter tests and quizzes</li></ul>	70%
<b>Formative Assessment</b> <ul style="list-style-type: none"><li>• Homework assignments.</li></ul>	30%