# Math Foundations 30

## Course Outline

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**What we are going to learn this year:**

In Foundations 30 there are 9 unique outcomes that we must meet. Listed below are the different areas of study that we will be looking at this semester.

Chapter 1 Financial Mathematics: Investing Money

- We will explore interest (simple and compound), as well as how to solve investment portfolio problems.

Chapter 2 Financial Mathematics: Borrowing Money

- We are going to be looking at loans and credit.

Chapter 3 Set Theory and Logic

- Learning and investigating set theory and relationships between two sets.

Chapter 4 Counting Methods

- We will be examining counting principles including factorials, permutations and combinations.

Chapter 5 Probability

- Studying probability by looking at: odds, conditional probability, counting methods and independent events.

Chapter 6 Polynomial Functions

- Graphing and solving polynomial functions, including modelling data.

Chapter 7 Exponential and Logarithmic Functions

- This section focuses on exploring and modelling exponential functions. It also looks at characteristics of logarithms.

Chapter 8 Sinusoidal Functions

- We will be exploring the graphs and equations related to sinusoidal functions (sine and cosine)

**How your grade will be determined:**

This course will utilize multiple different summative assessment strategies; these will include the use of quizzes to help determine the understanding of individual concepts being

taught. Projects and assignments will also be utilized to assess the understanding of interrelated concepts. The class will also require students to illustrate their understanding through exams as well.

I will also be utilizing different types of formative assessment to help me to understand areas of difficulty and concepts that require re-teaching. These may include exit slips, various questioning techniques and interviews with the students.

The mark breakdown is as follows:

Exams and Quizzes: 45%

Hand Ins and Projects: 55%

This will make up your mark that I will send in. There will also be a comprehensive **departmental exam worth 40%** of your final grade. This exam will be during the January test period.

**Materials Needed:**

- Ruler and pencils/pens
- Binder with paper
- Calculator (Scientific preferably)
- Geometry Set

This course will utilize the Foundations of Mathematics 12 textbook.

**Classroom Expectations**

Be Punctual: Attendance is directly related to academic success. If you are going to miss a class or be late, please let me know ahead of time. If you are late, please do not be a distraction when you come in.

Be Prepared: Ensure you have proper writing utensils, binder, and the necessary texts with you at all times.

Be Positive: Work to your full potential and utilize your class time effectively.

Be Polite: Respect your classmates at all times and listen attentively to everyone in the room. Do not be a distraction to your peers' learning and/or my teaching.

Be Responsible: Complete assignments and homework on time. All assignments are due at the start of class unless otherwise stated or discussed. Catch up by getting missed materials from a classmate or myself. It is YOUR responsibility to get what you missed on your own time. Absence is not an excuse for missed work. * Check the folder by my desk for handouts you may have missed.

Be Proactive: Ask me for extra help as soon as you feel you need it. Do not wait until the end of the semester, days before the final exam.