

FOUNDATIONS OF MATHEMATICS 12 (BC New Curriculum 2019)

UNIT ONE

FINANCE: INVESTING MONEY

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| Lesson 1 | Simple Interest |
| Lesson 2 | Future Value and Compound Interest |
| Lesson 3 | Using Technology for Financial Calculations – Part One |
| Lesson 4 | Using Technology for Financial Calculations – Part Two |
| Lesson 5 | Compound Interest with Regular Payments |

UNIT TWO

FINANCE: BORROWING MONEY

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| Lesson 1 | Analyzing Loans |
| Lesson 2 | Credit Cards and Pay Day Loans |
| Lesson 3 | Investigating Credit Card Repayment Options |
| Lesson 4 | Should you Buy, Lease, or Rent |

UNIT THREE

COMBINATORICS

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| Lesson 1 | Fundamental Counting Principle |
| Lesson 2 | Permutations when Objects are Not Similar |
| Lesson 3 | Permutations when Objects are Similar |
| Lesson 4 | Combinations |

UNIT FOUR

PROBABILITY

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| Lesson 1 | Probability Terminology and Notation; |
| Lesson 2 | Mutually Exclusive Events Events: A or B |
| Lesson 3 | Conditional Probability Events: A and B |
| Lesson 4 | Problems Involving Conditional Probability |
| Lesson 5 | Expected Value |

UNIT FIVE**POLYNOMIAL FUNCTIONS**

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| Lesson 1 | Graphs of Polynomial Functions |
| Lesson 2 | Characteristics of the Equations of Polynomial Functions |
| Lesson 3 | Using Technology to Model Data with a Line of Best Fit |
| Lesson 4 | Using Technology to Model Data with a Curve of Best Fit |

UNIT SIX**EXPONENTIAL AND LOGARITHMIC FUNCTIONS**

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| Lesson 1 | Characteristics of Graphs of Exponential Functions |
| Lesson 2 | Characteristics of Graphs of Logarithmic Functions |
| Lesson 3 | Using Technology to Model Data using Exponential and Logarithmic Functions |

UNIT SEVEN**SINUSOIDAL FUNCTIONS**

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| Lesson 1 | Radian Measure and Angles in Standard Position |
| Lesson 2 | Characteristics of Periodic Functions |
| Lesson 3 | Sinusoidal Functions |
| Lesson 4 | Using Technology to Model Data with Sinusoidal Functions |

UNIT EIGHT**CONICS**

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| Lesson 1 | Introducing Conic Sections |
| Lesson 2 | Graphing Circles and Rectangular Hyperbolas Using Technology |
| Lesson 3 | Expanding and Compressing Graphs of Conic Sections Using Technology |
| Lesson 4 | Translating Graphs of Conic Sections Using Technology |

UNIT NINE**CONSTRUCTIONS AND FRACTALS**

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| Lesson 1 | Constructing perpendicular bisector, tangents |
| Lesson 2 | Polygons, Tessellations, and Geometric Art |
| Lesson 3 | Introduction to Fractals and Fractal Geometry |
| Lesson 4 | Recursive Processes to create Cantor's Dust & Sierpinski's Triangle |
| Lesson 5 | Numerical patterns found in the two fractals; functions to represent |
| Lesson 6 | Connections to real-world fractals. |

Grading Your grade for this course will be calculated as follows:

| Item | Weight |
|-----------------|--------|
| Learning Guides | 50% |
| Unit tests | 50% |