



ALTERNATIVE EDUCATION

COURSE OUTLINE 2026-2027 Mathematics 30-2

MAT3792

5 Credit Course

Prerequisite	A course mark of 50% or higher in Mathematics 20-2
Required Materials & Resources	- Textbook: Principals of Mathematics 12 - Formula Sheet - Alberta Education approved graphing calculator

Course Overview

Math 30-2 consists of 8 units of study, as outlined below. The student's school-based mark is weighted as follows:

Unit & Topics of Study	Weighting
Unit 1: Set Theory & Logic Solve problems that involve the application of set theory; Solve problems that involve mutually exclusive and non-mutually exclusive events; Analyze puzzles and games that involve numerical and logical reasoning, using problem-solving strategies.	16%
Unit 2: Counting Methods Solve problems that involve the fundamental counting principle; Learn about factorial notation; Solve problems that involve permutations; Solve problems that involve combinations.	16%
Unit 3: Probability Interpret and assess the validity of odds and probability statements; Solve problems that involve the probability of mutually exclusive and non-mutually exclusive events; Solve independent and dependent probability problems; Solve problems that involve the probability of two events.	16%
Unit 4: Rational Expressions and Equations Determine equivalent forms of rational expressions; Perform operations on rational expressions; Solve problems that involve rational equations.	18%
Unit 5: Polynomial Functions Analyze polynomial graphs and equations; Represent data, using polynomial functions to solve problems.	9%
Unit 6: Exponential Functions Analyze exponential graphs and equations; Solve problems that involve exponential equations. Represent data, using exponential functions, to solve problems.	7%
Unit 7: Logarithmic Functions Analyze logarithmic graphs and equations; Demonstrate an understanding of logarithms and the laws of logarithms; Represent data, using logarithmic functions, to solve problems.	8%
Unit 8: Sinusoidal Functions Analyze sinusoidal graphs and equations; Represent data, using sinusoidal functions, to solve problems	10%
*Total	100%

Assessment	*The student's grade will be calculated based on the following (within each unit of study):	
	Assignment/Modules	20%
	Quizzes, Unit Exams, Labs, Projects	80%
Important Note Regarding Assessment	<i>The final course mark will be calculated cumulatively and is weighted as follows:</i> • <i>Final <u>school-based mark</u> is worth 70%.</i> • <i>Diploma Exam mark is worth 30%</i> • Alternative Education does not publish report cards. • Parents and students are encouraged to keep up to date on PowerSchool and contact their teacher if there are any issues.	
	A wide range of assessment information is used in the development of a student's final grade. In Edmonton Catholic Schools, individualized assessments provide specific information regarding student progress and overall performance in class. Assessment may vary from student to student, differentiating for various student needs. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.	