MATHEMATICS 30-3

MAT3793

5 Credit Course

ALTERNATIVE EDUCATION

Prerequisite	• A course mark of 50% or higher in Math 20-3
Required Materials & Resources	• Textbook: MathWorks 12 (Optional) • Formula Sheet • Scientific calculator

Course Overview

Math 30-3 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: Introduction to Course and Probability • Describe applications of probability; Calculate the probability of an event based upon data; Express probability as a fraction, decimal, percent, ratio and a statement; Solve real-life problem involving probability: Calculate theoretical probability; Explain how decisions are made based upon probability (theoretical and experimental) as well as subjective judgements; Explain the difference between odds and probability; Determine probability when given the odds and vice-versa.	19%
Unit 2: Graphing Statistics • Sketch the graph for a table of values; Demonstrate an understanding of slope; Solve problems that involve creating and interpreting graphs; Demonstrate an understanding of linear relations; Solve problems that involve measures of central tendency.	18%
Unit 3: Measurement • Demonstrate an understanding of the limitations of measuring instruments which include precision, accuracy, uncertainty and tolerance; Solve and verify problems that involve SI and imperial linear measurements, including decimal and fractional measurements; solve problems that involve SI and imperial units in volume and capacity measurement.	18%
Unit 4: Trigonometry • Solve problems by using the sine law and cosine law, excluding the ambiguous case; Demonstrate an understanding of the Pythagorean theorem; Demonstrate an understanding of similarity of convex polygons, including regular and irregular polygons; Demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent); Solve problems that involve parallel, perpendicular and transversal lines, and pairs of angles formed between them; Demonstrate an understanding of angles, including acute, right, obtuse, straight and reflex; Solve problems that involve two and three right triangles.	16%
Unit 5: 2D and 3D • Demonstrate an understanding of transformations on a 2-D shape or a 3-D object; Draw and describe exploded views, component parts and scale diagrams of simple 3-D objects; Solve problems that require the manipulation and application of formulas.	15%

Unit 6: Small Business • Solve problems that involve unit pricing and currency exchange, using proportional reasoning; Demonstrate an understanding of income; Solve problems that involve personal budgets; Demonstrate an understanding of financial institution services used to access and manage finances; Demonstrate an understanding of credit options; Critique the viability of small business options by considering expenses, sales, profit or loss; Solve problems that involve the acquisition of a vehicle by buying, leasing, or leasing to buy.	14%
*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% | • 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.
Important Note Regarding Assessments	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.