



MATHEMATICS 10C

MAT1791

5 Credit Course

ALTERNATIVE EDUCATION

Prerequisite	<ul style="list-style-type: none"> None
Required Materials & Resources	<ul style="list-style-type: none"> Textbook: Mathematics 10 Alberta approved Graphing Calculator Formula sheet

Course Overview

Math 10C 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: Measurement <ul style="list-style-type: none"> Solve problems that involve linear measurement, using SI and imperial units of measure, estimation strategies, measurement strategies; Apply proportional reasoning to problems that involve conversions between SI and imperial units of measure. 	7%
Unit 2: Surface Area and Volume <ul style="list-style-type: none"> Solve problems, using SI and imperial units, that involve the surface area and volume of 3-D objects, including: right cones, right cylinders, right prisms, right pyramids and spheres. 	8%
Unit 3: Right Angle Triangle <ul style="list-style-type: none"> Develop and apply the primary trigonometric ratios (sine, cosine, tangent) to solve problems that involve right triangles. 	8%
Unit 4: Exponents and Radicals <ul style="list-style-type: none"> Demonstrate an understanding of factors of whole numbers by determining the: square root and cube root; Demonstrate an understanding of powers with integral and rational exponents. 	12%
Unit 5: Polynomials <ul style="list-style-type: none"> Demonstrate an understanding of factors of whole numbers by determining the: prime factors, greatest common factor, least common multiple; Demonstrate an understanding of the multiplication of polynomial expressions (limited to monomials, binomials, and trinomials), concretely, pictorially and symbolically; demonstrate an understanding of common factors and trinomial factoring, concretely, pictorially and symbolically. 	11%
Unit 6: Linear Relations and Functions <ul style="list-style-type: none"> Interpret and explain the relationships among data, graphs and situations; Demonstrate an understanding of relations and functions; Describe and represent linear relations, using words, ordered pairs, tables of values, graphs, equations; Determine the characteristics of the graphs of linear relations, including the: intercepts, slope, domain, range; Represent a linear function, using function notation; demonstrate an understanding of slope with respect to rise and run, line segments and lines, rate of change, parallel line, perpendicular lines. 	9%
Unit 7: Linear Equations and Graphs <ul style="list-style-type: none"> Relate linear relations expressed in slope–intercept form ($y = mx + b$), general form ($Ax + By + C = 0$), slope–point form ($y - y_1 = m(x - x_1)$); Determine the equation of a linear relation, given: a graph, a point and the slope, two points, a point and the equation of a parallel or perpendicular line to solve problems. 	11%
Unit 8: Systems of Equations <ul style="list-style-type: none"> Solve problems that involve systems of linear equations in two variables, graphically and algebraically. 	9%

Final Exam (Common Summative Assessment)	25%
*Total	100%

Assessment	<p>*The student's grade will be calculated as follows (within each unit of study):</p> <table border="1" style="margin-left: 40px;"> <tr> <td style="text-align: center;">Coursework-Modules</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">Quizzes, exams, labs, projects</td> <td style="text-align: center;">80%</td> </tr> </table> <ul style="list-style-type: none"> • 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. • Final Grade: <ul style="list-style-type: none"> ○ 75% School Awarded Mark + 25% Final Exam (Common Summative Assessment) 	Coursework-Modules	20%	Quizzes, exams, labs, projects	80%
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Important note regarding assessment	<p>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.</p>				