

Math 30-2-A, Mathematics 30-2

5 credits, 6 hour lecture

Course Description

Topics covered include properties of angles and triangles; oblique triangle trigonometry; systems of linear equations; operations (addition, subtraction, multiplication, division) on rational expressions; solve rational equations; logarithms; numerical and logical reasoning Extensions to the core materials include a Business/Arts Prep module focusing on linear inequalities; probability; permutations, combinations and the fundamental counting principle and/or a Trades prep module which explores measurement involving triangles, quadrilaterals and regular polygons, including transformations on 2D shapes or 3D objects.

Alberta Education Course Equivalency: Math 30-2

Pre and Co-requisites

Prerequisite: Math 20-2 or Math 20-1 or permission from the Program Chair.

Course Learning Outcomes (CLOs)

Upon successful completion of the course, the student shall be able to:

Topic: Set Theory

CL01: Demonstrate an understanding of the type of sets, set notation, relationship between sets, intersection and union of two sets

CL02: Solve problems that involve the application of set theory.

Topic: Counting Methods

CL03: Solve problems that involve the Fundamental Counting Principle.

CL04: Solve problems that involve permutations.

CL05: Solve problems that involve combinations.

Topic: Probability

CL06: Demonstrate an understanding of odds and relate them to probability

CL07: Solve problems that involve counting Methods

CL08: Solve problems that involve the probability of mutually exclusive and non- mutually exclusive events

CL09: Solve problems that involve independent events

Topic: Polynomial Functions

CL10: Demonstrate an understanding of the terminology and properties related to polynomial functions

CL11: Analyzing graphs of polynomial functions

CL12: Demonstrate an understanding of the characteristics of polynomial functions using its equation, match equations to their graphs

Topic: Exponential and Logarithmic Functions

CL11: Solve problems that involve exponential equations.

CL12: Represent data, using exponential and logarithmic functions, to solve problems.

CL13: Demonstrate an understanding of logarithms and the laws of logarithms

CL14: Solve problems that involve exponential equations.

CL15: Represent data, using exponential and logarithmic functions, to solve problems.

Topic: Sinusoidal Functions

CL16: Represent data, using sinusoidal functions, to solve problems.

CL17: Demonstrate an understanding of Sinusoidal Functions

Assessment Type	Percentage
Daily Textbook Work (In class assignments)	5%
Assignments	21%
Quizzes	15%
Exams	29%
Final Exam	30%

Course Completion Requirements

Minimum passing mark of 50% or D is required.

Grading Scale

4.0 Grade Scale	Alpha Grade	Percentage Grade
4.0	A+	93-100
4.0	A	85-92.9
3.7	A-	80-84.9
3.3	B+	77-79.9
3.0	B	74-76.9
2.7	B-	70-73.9
2.3	C+	67-69.9
2.0	C	64-66.9
1.7	C-	60-63.9
1.3	D+	55-59.9
1.0	*D	50-54.9
0.0	F	0-49.9

Land Acknowledgement

We respectfully acknowledge that Keyano College is on Treaty No. 8 Territory, the ancestral and traditional territory of the Cree, Dene, and Métis people.

Review Date: March 4, 2024

Every effort has been made to ensure that information in this course outline is accurate at the time of publication. Keyano College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.

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