

**MATH 30-2A, Mathematics 30-2***5 credits, 6 hours lecture*

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 focussing 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**Prerequisites: Math 20-2 or Math 20-1 or permission from the Program Chair.***Instructor**

Christel Kennedy

CC205-O

(780) 791-4819

[christel.kennedy@keyano.ca](mailto:christel.kennedy@keyano.ca)**Office Hours**

Monday	4:00 – 4:50
Wednesday	2:00 – 2:50
Thursday	10:00 – 11:50
Friday	10:00 – 10:50

**Hours of Instruction**

Tuesday	8:00 – 9:50 Room	CC228
Thursday	8:00 – 9:50 Room	CC228
Friday	8:00 – 9:50 Room	CC224

**Required Resources**Principles of Mathematics 12: Alberta (Nelson)

Other supplies: TI83plus calculator, geometry set, graph paper, binder, ruled paper, pencils, pen, and eraser

**Course Outcomes**

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

- Solve problems that involve the application of set theory.
- Solve problems that involve the Fundamental Counting Principle.
- Solve problems that involve permutations.
- Solve problems that involve combinations.
- Determine equivalent forms of rational expressions (limited to numerators and denominators that are monomials and binomials).
- Perform operations on rational expressions (limited to numerators and denominators that are monomials and binomials).
- Solve problems that involve rational equations (limited to numerators and denominators that are monomials and binomials).
- Represent data, using polynomial functions (of degree  $\leq 3$ ), to solve problems.
- Solve problems that involve exponential equations.
- Represent data, using exponential and logarithmic functions, to solve problems.
- Demonstrate an understanding of logarithms and the laws of logarithms
- Solve problems that involve exponential equations.
- Represent data, using exponential and logarithmic functions, to solve problems.

**Evaluation**

Assignments	20%
Tests	30%
Projects	10%
Final Exam	40%
Total	100%

*The minimum pre-requisite for progression is 1.7 (refer to Grading System on following page)*

**Grading System**

<b>Descriptor</b>	<b>4.0 Scale</b>	<b>Percent</b>
Excellent	4.0	96 – 100
	4.0	90 – 95
	3.7	85 – 89
Good	3.3	81 – 84
	3.0	77 – 80
	2.7	73 – 76
Satisfactory	2.3	69 – 72
	2.0	65 – 68
<b>Minimum Prerequisite</b>	1.7	60 – 64
Poor	1.3	55 – 59
Minimum Pass	1.0	50 – 54
Failure	0.0	0 – 49

**Proposed Schedule of Topics**

<b>2 weeks</b>	Chapter 1: Set Theory
<b>2.5 weeks</b>	Chapter 2: Counting Methods
<b>3 weeks</b>	Chapter 4: Rational Expressions and Equations
<b>2.5 weeks</b>	Chapter 6: Exponential Functions
<b>2 weeks</b>	Chapter 7: Logarithmic Functions
<b>2 weeks</b>	Projects

**Please Note:**

Date and time allotted to each topic is subject to change

**Performance Requirements****Student Responsibilities**

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College credit calendar.

More specific details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

**Student Attendance**

Class attendance is useful for two reasons. First, class attendance maximizes a students' learning experience. Second, attending class is a good way to keep informed of matters relating the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

**Academic Misconduct**

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

In order to ensure your understanding of the concept of plagiarism, you must successfully complete the online tutorial found on [ilearn.keyano.ca](http://ilearn.keyano.ca). Then print the certificate, sign it, and show it to each of your instructors. Your course work will not be graded until you show this signed certificate.

**Specialized Supports****Counselling and Accessibility Services**

Counselling Services provides a wide range of specialized counselling services to prospective and registered students, including personal, career and academic counselling.

**SKILL Centre**

The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service.