

Math 30-3A, Mathematics 30-3*5 credits, 5 hours lecture*

Math 30-3 is a part of the new Alberta Program of Studies. The "-3" course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into the majority of trades and for direct entry into the work force. Topics of study will include linear relations, limits to measurement, statistics, probability and odds, properties of geometric figures, transformations, trigonometry, and owning a small business. This course will be delivered through projects, activities, and problems set in real world contexts, enabling students to make connections between high school math and the workplace.

*Prerequisite: Math 20-3, 20-2, or 20-1 or permission from the Program Chair
Alberta Education Course Equivalency: Math 30-3*

Instructor

Lisa Turner
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Office Hours

Monday 10:00 – 11:50
Wednesday 12:00 – 12:50; 3:00 – 3:50
Thursday 10:00 – 10:50

Hours of Instruction

Monday 8:00 – 9:50 in Room CC223
Wednesday 1:00 – 2:50 in Room CC233
Thursday 11:00 – 11:50 in Room CC235

Required Resources

MathWorks 12 Workbook, Pacific Educational Press, ISBN 978-0-9865108-1-6
Scientific calculator, geometry set, paper, pens, pencils and erasers are required.

Course Outcomes

Upon successful completion of Math 30-3, students will be able to:

- Demonstrate an understanding of linear relations by recognizing patterns and trends, graphing, creating tables of values, writing equations, interpolating and extrapolating, and solving problems.
- Demonstrate an understanding of the limitations of measuring instruments, including precision, accuracy, uncertainty, tolerance, and solve problems.
- Solve problems that involve measures of central tendency, including mean, median, mode, weighted mean, and trimmed mean.

- Analyze and describe percentiles.
- Analyze and interpret problems that involve probability
- Solve problems by using the sine law and cosine law, excluding the ambiguous case.
- Solve problems that involve triangles, quadrilaterals, and regular polygons.
- Demonstrate an understanding of transformations on a 2-D shape or a 3-D object, including translations, rotations, reflections, and dilations.
- Solve problems that involve the acquisition of a vehicle by buying, leasing, and leasing to buy.
- Critique the viability of small business options by considering expenses, sales, and profit or loss.

Evaluation

Assignments	30%
Quizzes/Tests	25%
Unit Projects	15%
Final Exam	30%
Total	100%

The minimum pre-requisite for progression is 1.7 (refer to Grading System below)

Grading System

Descriptor	4.0 Scale	Percent
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
Minimum Prerequisite	1.7	60 – 64
Poor	1.3	55 – 59
Minimum Pass	1.0	50 – 54
Failure	0.0	0 – 49

Proposed Schedule of Topics

Proposed Time Frame	Chapter and Chapter Sections
2 weeks	Chapter 1: Linear Relations <ul style="list-style-type: none"> • 1.1: Linear Relations in Tables and Graphs • 1.2: The Equation of a Line CHAPTER 1 TEST
2 weeks	Chapter 2: Limits to Measurement <ul style="list-style-type: none"> • 2.1: Accuracy and Precision • 2.2: Tolerances CHAPTER 2 TEST
2 weeks	Chapter 3: Statistics <ul style="list-style-type: none"> • 3.1: Mean, Median, and Mode • 3.2: Weighted and Trimmed Means and Outliers • 3.3: Percentile Ranking CHAPTER 3 TEST
2 weeks	Chapter 4: Probability and Odds <ul style="list-style-type: none"> • 4.1: Experimental Probability • 4.2: Theoretical Probability • 4.3: Odds and Probability CHAPTER 4 TEST
2 weeks	Chapter 5: Properties of Geometric Figures <ul style="list-style-type: none"> • 5.1: Triangles • 5.2: Quadrilaterals • 5.3: Regular Polygons CHAPTER 5 TEST
3 weeks	Chapter 7: Trigonometry <ul style="list-style-type: none"> • 7.1: The Sine Law • 7.2: The Cosine Law CHAPTER 7 TEST
	Final Exam Review Last Day of Class: Monday, December 12, 2016
Final Exam Period	December 14-16, 2016

Proposed Course Calendar

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	September 5 Labour Day	September 6 Orientation Day	September 7 First Day of Math	8	9
2	12	13	14	15	16
3	19	20	21 Chapter 1 Test	22	23
4	26	27	28	29	30
5	October 3	4	5	6 Chapter 2 Test	7
6	10 Thanksgiving Day - College Closed	11	12	13	14
7	17	18	19	20	21
8	24 Chapter 3 Test	25	26	27	28
9	31	November 1	2	3	4
10	7 Chapter 4 Test	8	9 Reading Day - No Classes	10 Reading Day - No Classes	11 Remembrance Day - College Closed
11	14	15	16	17	18
12	21	22	23	24 Chapter 5 Test	25
13	28	29	30	December 1	2
14	5	6	7	8 Chapter 7 Test	9
15	12	13 Last Day of Class	14 Exams	15 Exams	16 Exams

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 student's learning experience. Second, attending class is a good way to keep informed of matters relating to 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. 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 Disability 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.

Authorization

This course outline has been reviewed and approved by the Program Chair.

Lisa Turner, Instructor

Lisa Turner, Chair

Date Authorized

Guy Harmer, Dean

Date Authorized

Signed copies to be delivered to:

Instructor

Registrar's Office