MATH 30-3A, Mathematics 30-3
5 credits, 5 hours lecture

The focus on the development of spatial sense introduces an understanding of the limitations of measurement tools in terms of precision, accuracy, uncertainty, and tolerance. Students perform translations, rotations, reflections and dilations on 2D and 3D models. Within the topic of linear relations, students demonstrate proficiency in graphing, formula manipulations, interpolation and extrapolation. Students critique the viability of small business options by considering expenses, sales and profit/loss statements. Statistical reasoning is developed through the study of measure of central tendency and the analysis of probability.

Alberta Education Course Equivalency: Math 30-3
Prerequisite: Math 20-3

Instructor

Lisa Turner
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Office Hours

Monday	10:00 – 11:50
Wednesday	10:00 – 11:50
Thursday	11:00 – 11:50

Hours of Instruction

Monday	11:00 – 12:50 in Room CC215
Wednesday	11:00 – 12:50 in Room CC215
Thursday	9:00 – 9:50 in Room CC283

Required Resources

MathWorks 30 Workbook, Pacific Educational Press, ISBN 978-1-89576-651-6
Scientific calculator (Casio fx-260 solar is preferred), geometry set, paper, pens, pencils and erasers are required.

Course Outcomes

Upon successful completion of the course, the student shall 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	35%
Midterm Exam	30%
Final Exam	35%
Total	100%

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

Grading System

Descriptor	4.0 Scale	Percent
	4.0	96 – 100
Excellent	4.0	90 – 95
	3.7	85 – 89
	3.3	81 – 84
Good	3.0	77 – 80
	2.7	73 – 76
	2.3	69 – 72
Satisfactory	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 (see calendar below)

Proposed Time Frame	Chapter and Chapter Sections
January 8 - 18	Chapter 1: Linear Relations • 1.1: Linear Relations in Tables and Graphs • 1.2: The Equation of a Line
January 22 – February 1	Chapter 2: Limits to Measurement • 2.1: Accuracy and Precision • 2.2: Tolerances
February 5 - 14	Chapter 3: Statistics • 3.1: Mean, Median, and Mode • 3.2: Weighted and Trimmed Means and Outliers • 3.3: Percentile Ranking
February 15 – March 5	Chapter 4: Probability and Odds • 4.1: Experimental Probability • 4.2: Theoretical Probability • 4.3: Odds and Probability
March 7, 2018	Midterm Exam
March 8 - 22	Chapter 5: Properties of Geometric Figures • 5.1: Triangles • 5.2: Quadrilaterals • 5.3: Regular Polygons
March 26 – April 9	Chapter 7: Trigonometry • 7.1: The Sine Law • 7.2: The Cosine Law
April 11-12	Final Exam Review Last Day of Class: Thursday, April 12, 2018
April 16-20, 2018	Final Exam Period

Calendar of Important Events - *Dates on the following calendar are tentative; shaded areas indicate <u>no</u> Math 30-3 classes.*

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	Jan 8 First Math 30-3 Class *Chapter 1*	9	10 *Chapter 1*	11 *Chapter 1*	12
2	15 *Chapter 1*	16	17 *Chapter 1*	18 *Chapter 1*	19
3	22 *Chapter 2*	23	24 *Chapter 2*	25 *Chapter 2*	26
4	29 *Chapter 2*	30	31 *Chapter 2*	Feb 1 *Chapter 2*	2
5	5 *Chapter 3*	6	7 *Chapter 3*	8 *Chapter 3*	9
6	12 *Chapter 3*	13	14 *Chapter 3*	15 *Chapter 4*	16
7	19 Family Day Holiday College Closed	20 Reading Day— No Classes	21 Reading Day— No Classes	22 Reading Day— No Classes	23 Reading Day— No Classes
8	26 *Chapter 4*	27	28 *Chapter 4*	Mar 1 *Chapter 4*	2
9	5 *Chapter 4 & Review*	6	7 *Midterm Exam*	8 *Chapter 5*	9
10	12 *Chapter 5*	13	14 *Chapter 5*	15 *Chapter 5*	16
11	19 *Chapter 5*	20	21 *Chapter 5*	22 *Chapter 5*	23
12	26 *Chapter 7*	27	28 *Chapter 7*	29 *Chapter 7*	30 Good Friday Holiday College Closed
13	Apr 2 Easter Monday College Closed	3	4 *Chapter 7*	5 *Chapter 7*	6
14	9 *Chapter 7*	10	11 *Review*	12 *Review*	13 Last Day of Classes
15	16 Final Exams	17 Final Exams	18 Final Exams	19 Final Exams	20 Final Exams

<u>Please Note:</u>

Date and time allotted to each topic is subject to change.
Final exams are scheduled by the College. Do <u>not</u> book travel until April 21, 2018

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

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 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.