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, interpolations and extrapolation. Students critique the viability of small business options by considering expenses, sales and profit/loss statements. Statistical reasoning is developed through study of measure of central tendency and the analysis of probability.

Course Outcomes:

General Math Program Outcomes:

Students will:

- Develop spatial sense and proportional reasoning
- Develop algebraic reasoning and number sense
- Develop algebraic and graphical reasoning through the study of relations

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 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.
Course Content and Proposed Schedule:

Chapter 1: Linear Relations   Sept 3 - 15
   1.1 Linear Relations in Tables and Graphs
   1.2 The Equation of a Line
   1.3 Scatterplots and Linear Trends

Chapter 2: Limits to Measurement   Sept 16 - 22
   2.1 Accuracy and Precision
   2.2 Tolerances

Chapter 3: Statistics   Sept 23 – Oct 7
   3.1 Mean, Median and Mode
   3.2 Weighted and Trimmed Means and Outliers
   3.3 Percentile Ranking

Chapter 4: Probability and Odds   Oct 8 - 15
   4.1 Experimental Probability
   4.2 Theoretical Probability

Chapter 5: Properties of Geometric Figures   Oct 16 - 30
   5.1 Triangles
   5.2 Quadrilaterals
   5.3 Regular Polygons

Chapter 6: Transformations   Nov 3 - 10
   6.1 Single Transformation
   6.2 Multiple Transformations

Chapter 7: Trigonometry   Nov 12 - 21
   7.1 The Sine Law
   7.2 The Cosine Law

Chapter 8: Owning a Small Business   Nov 24 – Dec 3
   8.1 Start a Small Business
   8.2 Operate a Small Business
   8.3 Buy or Lease a Vehicle for Your Business
Review and Completion of Outstanding Work

Dec 3 - 11

FINAL EXAM TBA

EVALUATION:

Assignments 20%
Quizzes/Tests 30%
Unit Projects/Midterm 20%
Final Exam 30%
Total 100%

Grade Point:

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<th>Percentage</th>
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Overall Expectations:

Please turn off cell phones, MP3 players and any other electronic devices before coming to class.

Assignments: Assignments must be dated and submitted to the instructor no later than 4:00 pm on the day on which the assignment is due. Late assignments will be accepted but a penalty of 2% per date to a maximum of 10% will be deducted from the assignment mark. Exemptions for assignments may be granted in exceptional circumstances beyond the control of the student. A 5% bonus mark will be given to all assignments that are turned in on time.

Punctuality: Punctuality is important. Students are expected to be ready to begin work when the class is scheduled to begin. Therefore, students are encouraged to arrive at class a minute or two early so that they may organize their working materials by starting time. Late arrival is detrimental to the student and inconsiderate of the instructor and other students. Arrival in good time is associated with success and is considerate of the instructor and other students.

Attendance: Students are expected to attend all classes. Should a student miss a class for any reason, it is his/her responsibility to cover the work missed and be ready for the next class.
If you want to be assured of success in this course, the following three things will most often grant that to you.

1. Attend every day and get involved in the class. When you can’t attend, cover the work done anyway.
2. Ask a question when you do not understand the work and keep asking until you get an explanation you can understand. Feel free to ask for help from the Skill Center, your peers and the instructor. Remember that the Skill Center is for “support”, not to “teach” you course content due to lack of attendance.
3. Do all of the daily work given or give it your very best effort and get help with the parts you are unable to complete.

STUDENTS RIGHTS AND RESPONSIBILITIES

Students should be aware of their rights and responsibilities as laid out in the Keyano College Credit Calendar 2014 – 2015. The calendar may be found online or a paper copy may be available in the office to read.
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.

Disability Services provides educational services to students with disabilities.

Both Counselling and Disability Services are located in CC167.

Important Dates
Fall 2014

Orientation Day
First Day of Class
Last day to ADD Courses
Tuition is due ($100 late fee charged after this date)
Last day to DROP Courses with full refund ($100 deposit is non-refundable)
Last day to WAIVE SAKC health and dental plan or add family
Last day to submit Keyano College Fall Awards Applications
Last day to WITHDRAW with a refund (50%)
Last day to WITHDRAW (Grade of W)

September 2
September 3
September 9
September 9
September 16
September 16
September 30
October 10
November 26

Authorizations

The course outline for Math 30-3F - Fall 2014 has been authorized by the following individuals:

Maureen Clarke (Course Instructor)

Lisa Turner (Chair)

Guy Harmer (Dean)

Course Outline Effective Date: September 3, 2014