MATH 10C INT
Mathematics 10C
6 credits, 16 weeks, 6 hours lecture
Topics covered include linear SI metric and Imperial measurement and conversions; surface area and volume of 3D objects; right triangle trigonometry; power laws with integral and rational exponents; operations (addition, subtraction, multiplication, division) on polynomials; factor polynomials; identify, describe, interpret and analyze relations and functions; evaluate functional notation; determine domain and range; graph and define linear relations; solve linear system of two relations
Alberta Education Course Equivalency: Math 10C
Prerequisite: AFM 009 or permission of the program chair

Course Equivalency

Alberta Education course equivalency: Math 10C

Instructor Information

Instructor	Gillian Whalen
Office Phone	780-559-2434
Cell Phone	587-646-4358
E-mail	Gillian.Whalen@keyano.ca

Class Time

Monday	1:00 PM – 2:50 PM
Wednesday	10:00 AM – 11:50 AM
Thursday	10:00 AM – 11:50 AM

Office Hours

Monday	10:00 AM to 10:50AM
Tuesday	11:0 AM to 11:50 AM 2:00 PM to 2:50 PM
Wednesday	9:00 AM to 9:50 AM
Friday	11:00 AM to 11:50 AM

Required/Recommended Resources

Text: MATHEMATICS 10 (McGraw-Hill Ryerson)
Scientific calculator or a graphing calculator
Ruler, Algebra Tiles, graph paper, binder, ruled paper, pencils, pen, eraser, and scissors.

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 10C, students will be able to:
- ✓ Solve problems that involve SI and Imperial units of linear measurement
- ✓ Apply proportional reasoning to problems that involve conversions between SI and Imperial units of measure
- ✓ Solve problems, using SI and Imperial units, that involve the surface area and volume of 3-D objects, including right cones, right cylinders, right prisms, right pyramids and spheres
- ✓ Develop and apply the primary trigonometric ratios to solve problems that involve right triangles
- ✓ Demonstrate an understanding of powers with integral and rational exponents
- ✓ Demonstrate an understanding of factors of whole numbers by determining the
  - Prime factors
  - Greatest common factor
  - Least common multiple
  - Square root
  - Cube root
- ✓ Demonstrate an understanding of irrational numbers by
  - Representing, identifying and simplifying irrational numbers
  - Ordering irrational numbers
- ✓ demonstrate an understanding of the multiplication of polynomial expressions (limited to monomials, binomials and trinomials)
- ✓ demonstrate an understanding of common factors and trinomial factoring
- ✓ interpret and explain the relationships among data, graphs and situations
- ✓ demonstrate an understanding of relations and functions

- ✓ demonstrate an understanding of slope with respect to:
  - rise and run
  - line segments and lines
  - rate of change
  - parallel lines
  - perpendicular lines
- ✓ describe and represent linear relations, using
  - words, ordered pairs
  - table of values, graphs
  - equations
- ✓ represent a linear function, using functional notation
- ✓ determine the characteristics of the graphs of linear relations, including the:
  - intercepts
  - slope
  - domain
  - range
- ✓ relate linear relations expressed in:
  - slope-intercept form (*y=mx+b*)
  - general form (*Ax+By+C=0*)
  - slope-point form *(y-y$_1$=m(x-x$_1$))*

  to their graphs
- ✓ determine the equation of a linear relation, given:
  - a graph
  - a point and the slope
  - two points
  - a point and the equation of a parallel or perpendicular line

  to solve problems
- ✓ solve problems that involve systems of linear equations in two variables, graphically and algebraically

Evaluation:

Category	Weight
3 Unit Assignments	10%
7 Chapter Assignments	30%
6 Chapter Tests	30%
Final Exam	30%
Total Grade	100%

Notes of Evaluation

1. Your assignments should be scanned as a *pdf* file and sent in to your instructor.
2. All tests must be written on the day stated.
3. You must write the final exam during the final exam period. If you are unable to write on time you must do the following;
    a. Notify me (instructor) on or before the day the test is scheduled.
    b. Produce a medical certificate indicating a serious illness.

Words of Wisdom

1. Contact me if you have any questions or if you need help. I can mainly be reached by my cell phone or by email. I am also willing to help students both during my office hours and arranged appointments.
2. Do all your assignments, projects, review, homework and practice sheets regularly.
3. Stick to the schedule as much as possible. This will ensure you complete all the required work by the end of the course.
4. Keyano College Grading System (from Credit Calendar)

Descriptor	4.0 Grade Scale	Percentage Scale
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 %

IMPORTANT DATES

Orientation Day	September 2
First Day of Class	September 3
Last day to ADD Courses	September 9
Tuition is due ($100 late fee charged after this date)	September 9
Last day to DROP Courses with full refund ($100 deposit is non-refundable)	September 16
Last day to WAIVE SAKC health and dental plan or add family	September 16
Last day to submit Keyano College Fall Awards Applications	September 30
Last day to WITHDRAW with a refund (50%)	October 10
Last day to WITHDRAW (Grade of W)	November 26

Academic Regulations

Use this link to view Keyano College's Academic Regulations:

http://www.keyano.ca/Media/Collections/Calendars/Keyano.Calendar1011-02-academicregulations.pdf

Academic Schedule

http://www.keyano.ca/Media/Collections/Calendars/Keyano.Calendar1011-01-introduction.pdf

Math Progression

Students successfully completing Math 20-2 may choose to proceed to Math 20-1 OR 30-2

"-1" Course Sequence

This course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus; students planning to study mathematics or sciences programs such as engineering, mathematics, sciences, some business studies, or programs requiring advanced math skills. Topics include algebra and number; measurement; relations and functions; trigonometry; and permutations, combinations and binomial theorem.

"-2" Course Sequence

This course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus; students planning to attend post-secondary programs that are not math or science based; this path will fulfill most students' needs. Topics include geometry, measurement, number and logic, logical reasoning, relations and functions, statistics, and probability.

Proposed Course sequencing:

AFM 009 ——→ Math 10C
Math 20-1 → Math 30-1
Math 20-2 → Math 30-2
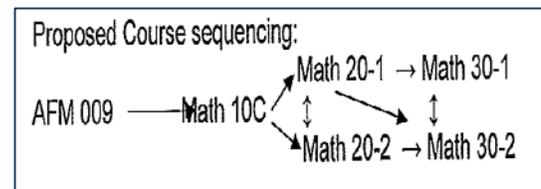
Office of the Registrar:

Address: 8115 Franklin Avenue
                T9H 2H7
                Fort McMurray
Email: registrar@keyano.ca
Website: www. keyano.ca
Phone: (780) 791- 4801
Fax: (780) 791 – 4952
Keyano College Main Switchboard Toll Free: 1-800-251-1408

*It is your responsibility to contact the Office of the Registrar to complete the forms for withdrawal or change of registration, and any other required forms. Please refer to the list of important dates noted below.

Authorization

The course outline for **MATH 10C INT – FALL 2014** has been authorized by the following individuals:

Gillian Whalen
Gillian Whalen, Instructor

Lisa Turner (Chair)

Guy Harmer (Dean)

Course Outline Effective Date: _____
                                    MM/DD/YYYY