



Academic Foundations

School of Career & Education Access

ACADEMIC FOUNDATIONS MATH 007(AFM007)

Section M

COURSE OUTLINE

FALL 2013

Course Description

ACADEMIC FOUNDATIONS MATH 007

AFM007 – Intermediate Math

6 credits, 16 weeks, 8 hours / week

AFM 007 will apply a review of whole numbers, fractions and decimals to all operations (addition, subtraction, multiplication, division) on integers, signed fractions and signed decimals including order of operations. Students will apply their number sense to the solving of ratio, proportion and percent applications as well as the interpretation of data presented in various charts or graphs. Algebra will be explored through the solving of one step linear equations. Perimeter and area of two dimensional shapes will be explored and applied to the volume of three dimensional figures, with a focus on circles and triangles.

Instructor Contact Information, Office Hours

Course Hours: Monday /Tuesday: 9.00-11.00; Wed: 12.00-2.00pm; Thurs: 10.00-12.00

Instructor: Linda Mason

E-mail: linda.mason@keyano.ca

Phone Number: 780-828-4433

Blackberry: 780-838-1652

Office: Dorothy McDonald Learning Centre, Fort McKay.

Office Hours: Monday – Wednesday (7.45 – 8.30)

Monday/Thursday(12.00 – 12.30) Thurs: (8.30-9.00) Friday (9.00-9.15)

Required and Recommended Resources

- “Basic College Maths” – Marvin Bittinger – 2nd edition.
- Teacher Prepared materials

STUDENT LEARNING OUTCOMES:

By the end of this course students will have developed an improved level of competency with:-

Unit 1: Whole Numbers

- ❖ Standard Notation
- ❖ Addition
- ❖ Subtraction
- ❖ Multiplication
- ❖ Division
- ❖ Rounding and Estimating
- ❖ Exponents and order of Operations

Unit 2: Integers

- ❖ Addition & Subtraction
- ❖ Multiplication & Division
- ❖ Order of Operations

Unit 3: Fractions- Multiplication and Division

- ❖ Factorizations
- ❖ Divisibility
- ❖ Fraction Notation
- ❖ Multiplications and Divisions

Unit 4: Fraction Notation and Mixed Numerals

- ❖ Least Common Multiples
- ❖ Addition, Subtraction, Order
- ❖ Mixed Numerals
- ❖ Order of operations: Estimation

Unit 5: Decimals

- ❖ Order and rounding
- ❖ Adding, Subtracting
- ❖ Multiplication, Division
- ❖ Converting from fraction to Decimal
- ❖ Estimating

Unit 6: ratio and Proportion

- ❖ Ratios, Rates and Unit Prices
- ❖ Proportions
- ❖ Geometric Applications

Unit 7: Percent

- ❖ Percent,
- ❖ Percent and Fraction Notation
- ❖ Solving Problems
- ❖ Sales Tax, Commission and Discount
- ❖ Simple and Compound Interest; Credit cards

Unit 8: Data, Graphs and Statistics

- ❖ Averages, means and Modes

- ❖ Tables and Pictographs
- ❖ Bar, Line and Circle graphs

Unit 9: Measurement

- ❖ Linear – American and Metric S
- ❖ Converting between systems
- ❖ Weight and Mass
- ❖ Capacity, Time and Temperature
- ❖ Converting units of Area

Unit 10: Geometry

- ❖ Perimeter, Area
- ❖ Circles, Angles and Triangles
- ❖ Volume
- ❖ Square roots and Pythagoras' theorem

Unit 11: Algebra

- ❖ Introduction to Algebra
- ❖ Solving Equations – addition principle, multiplication principle

EVALUATION:

Assignments	60%
Unit Tests	10%
Midterm	10%
Final Exam	<u>20%</u>
 Total	 100%

KEYANO COLLEGE GRADING SCALE

Descriptor	Alpha Grade	4.0 Scale	Percentage
Excellent	A+	4.0	91-100
	A	4.0	86-90
	A-	3.7	80-85
	B+	3.3	76-79
Good	B	3.0	73-75
	B-	2.7	70-72
	C+	2.3	67-69
Satisfactory	C	2.0	64-66
	C-	1.7	60 -63
Poor	D+	1.3	57- 59
Minimal Pass	D	1.0	50-56
Failure	F	0.0	0-49

- A minimum grade of C-, or 60%, is required for progression from one level to another
- A grade of D will allow you to pass a course, but it is not sufficient to allow you to move to the next level.
- A grade of C or better, 65% or more, is required in the 13, or 23 level courses to be acceptable as a prerequisite to a 30 level.

- A grade of C or better, 65% or more, is required in the 33 level courses to meet the requirements to obtain a Keyano High School Equivalency.

FINAL EXAMINATION

All final exams must be written on the specified examination date unless the conditions listed in the Keyano College Calendar under "Deferred Exams" apply.

STUDENT RIGHTS AND RESPONSIBILITIES

Students should be aware of their rights and responsibilities as laid out in the *Keyano College Credit Calendar 2012-2013*, on pages 31-34, or as included in the student package.

In order to "refrain from unduly disturbing, disrupting or otherwise interfering with studies..." (*KCCC, 2012/2013*, p. 32), students should turn cell phones and pagers off when they come to class, and refrain from bringing children or other visitors to class.

CLASS STRUCTURE

Through the semester, we will be working independently at the computer and with our modules, together as a class, and in pairs.

-Auto Skills work will be completely independent work at the computer. No more than 5 students in AFM 007 and AFM 009 can access the program at the same time, so we may break into 2 alternating groups.

-It is easier to learn some math skills by using tools and performing activities. Therefore, when a new topic is being introduced, and 1 or 2 days before a test, we may work as a class on some projects.

CLASSROOM EXPECTATIONS

In order to make the learning center a happy and productive place to learn, each student is expected to:

- attend classes regularly;
- arrive to school on time;
- phone the learning center to notify the instructor should she/he be unable to attend classes that day;
- limit the use of the school telephone to short important phone calls;
- keep her/his work table tidy;
- wash her/his own dishes;
- wear indoor shoes or slippers to help keep the classroom floors clean;
- show respect to fellow students and contribute to maintaining a peaceful learning atmosphere.

MATH 007

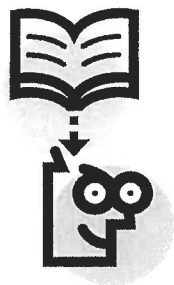
WEEK	DATES	CHAPTER	TOPIC	TESTS
1 & 2	Sept 3 - 13	1	Whole Numbers – Addition; Subtraction; Multiplication; division; rounding & estimating. Exponents.	Sept 13
3	Sept 16-20	2	Integers – Addition; subtraction; Multiplication; division. Order of Operations.	Sept 20
4	Sept 23-27	3	Fractions –Dividing; multiplying; Simplifying. Applications.	Sept 27

5	Sept 30- Oct 4	4	Fractions / Mixed Numerals ; LCM; Addition; Subtraction; order of Operations.	Oct 4
6 & 7	Oct 7 – 18	5	Decimals – Order, rounding, addition, subtraction, multiplication, division. Converting from fraction to decimal.	Oct 18
8	Oct 21-25	6	Ratio and Proportion – ratios, unit prices, proportions. Applications.	Oct 25
9 & 10	Oct 28- Nov 8	7	Percentages – percents and fractions; percent equations; sales tax; interest.	Nov 8
11	Nov 11- 15	8	Data, graphs and Statistics – averages, medians, modes. Tables, bar, line graphs, circle graphs.	Nov 15
12	Nov 18 - 22	9	Measurement – Linear – American / Metric; weight and mass; volume; time and temperature.	Nov 22
13 – 14	Nov 25 – Dec 6	10	Geometry – perimeter, Area; circles, volume, angles, triangles, square roots, Pythagoras' theory.	Dec 6
15	Dec 9 – 13	11	Algebra – introduction, solving equations. Applications. Review if possible	Dec 13
16	Dec 16- 20	Exam Week		FINAL Dec 16

Please Note:

This schedule may be modified at the instructor's discretion to facilitate unforeseen time constraint

LEARNER ASSISTANCE PROGRAM



If you have been diagnosed with a Learning Disability in the past, or you feel that you would benefit from some assistance from a Disabilities Counsellor, please call our office 780-792-5608 to book an appointment. Services and accommodations are intended to assist you in your course, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, receiving accommodations, and your overall success at Keyano College.

IMPORTANT DATES

- Sept 10 - last day to add courses
- Sept 17 - last day to drop courses
- Oct 11 - last day to withdraw with 50% refund
- Oct 25 - last day to withdraw without academic penalty

Authorizations

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

LindaJMason

Linda Mason, Instructor

Janet Lowndes, Chairperson

Date Authorized

Guy Harmer, Dean

Date Authorized

Signed copies to be delivered to:

Instructor

Office of the Registrar