

Intermediate Math 7 (AFM 007)

6 credits, 16 weeks, 8 hours lecture/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.

Prerequisite: AFM 006 or permission from the Program Chair

Instructor

Instructor: Allen Fung
Office location: Janvier Learning Centre / CC 205 W
Office number: 780 559 2047
Mobile number: 780 215 4877
E-mail: allen.fung@keyano.ca

Office Hours

Monday 12:00 – 1:00pm / 3:00 - 4:00pm
Tuesday, Wednesday, and Thursday 12:00 – 1:00pm

Hours of Instruction

Monday – Thursday 1:00 – 3:00pm

Required Resources

Basic College Mathematics with Early Integers, Bittinger, ISBN: 13-978-0-321-61341-7

Course Outcomes

Upon successful completion of AFM 007, students will be able to:

1. Number strand

- a. Perform four operations (addition, subtraction, multiplication & division) with integers, decimals and fractions
- b. Solve applied problems involving the four operations on integers, decimals and fractions
- c. Simplify expressions involving integers, fractions and decimals using the rules of order of operations
- d. Solve applied problems involving proportions
- e. Solve applied problems involving percent

2. Statistics and Probability strand

- a. Find the average (mean), median and mode of a set of numbers and solve applied problems involving mean, median and mode.
- b. Extract and interpret data from tables, pictographs, bar graphs, line graphs and circle graphs

3. Shape and Space strand

- a. Classify angles according to their measure
- b. Measure and draw angles, using a protractor
- c. Classify triangles according to the length of their sides (equilateral, isosceles or scalene) and the measure of their interior angles (right, obtuse or acute)
- d. Solve problems involving the radius, diameter, and circumference of a circle
- e. Estimate the area of a surface
- f. Solve problems involving the area of triangles, parallelograms and circles
- g. Estimate the volume of a 3-D object
- h. Solve problems involving the volume of prisms and cylinders

4. Patterns and Relations strand

- a. Solve one step equations involving integers, fractions and decimals

Evaluation

Assignments	40%
Quizzes/Tests	20%
Midterm Exam	15%
Final Exam	25%
Total	100%

The minimum pre-requisite for progression is 1.7 (see 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

Week	Dates	Chapter	Topic	TESTS
1 & 2	Jan 5 - 16	1	Whole Numbers – Addition; Subtraction; Multiplication; division; rounding & estimating. Exponents.	Jan 16
3	Jan 19 - 23	2	Integers – Addition; subtraction; Multiplication; division. Order of Operations.	Jan 23
4	Jan 26 - 30	3	Fractions –Dividing; multiplying; Simplifying. Applications.	Jan 30
5	Feb 2 - 6	4	Fractions / Mixed Numerals ; LCM; Addition; Subtraction; order of Operations.	Feb 6
6 & 7	Feb 9 - 20	5	Decimals – Order, rounding, addition, subtraction, multiplication, division. Converting from fraction to decimal.	Feb 20
8	Feb 23 - 27		Reading Week	
9 & 10	Mar 2 - 13	6	Ratio and Proportion – ratios, unit prices, proportions. Applications.	Mar 13
11	Mar 16 - 20	7	Percentages – percents and fractions; percent equations; sales tax; interest.	Mar 20
12	Mar 23 - 27	8	Data, graphs and Statistics – averages, medians, modes. Tables, bar, line graphs, circle graphs.	Mar 27
13 - 14	Mar 30 – Apr 10	9	Measurement – Linear – American / Metric; weight and mass; volume; time and temperature.	Apr 10
15	Apr 13 - 17	10	Geometry – perimeter, Area; circles, volume, angles, triangles, square roots, Pythagoras' theory.	Apr 17
16	Apr 20 - 22	11	Algebra – introduction, solving equations. Applications. Completion of outstanding work / Review	Apr 23
	Apr 24 - 29	Exam Week	Final Exam	Apr 24

Please Note:

Date and time allotted to each topic is subject to change. 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.

Performance Requirements

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

Penalties for academic offences range from a verbal reprimand to dismissal from the College, and in certain circumstances may involve legal action.

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.

Allen Fung, Instructor

Lisa Turner, Chair

Date Authorized

Guy Harmer, Dean

Date Authorized

Signed copies to be delivered to:

Instructor

Registrar's Office