



**I. COURSE DESCRIPTION:** A self-directed course in which the learner, along with the direction of the professor, reviews basic mathematical skills including percents, geometry, measurement, statistics, real numbers and algebra. Although not assumed, it is entirely possible to complete the requirements for this course in one semester.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Manipulate percents and solve problems related to percent.  
Potential Elements of the Performance:
  - Change between decimal, fraction and percent
  - Identify rate, base, and amount
  - Find an unknown rate, base or amount
  - Solve for unknown rate, base or amount in a percent application
2. Use both the English (American) and Metric systems to describe distance, weight and volume.  
Potential Elements of the Performance:
  - Describe measurement in the English system (distance, weight and volume)
  - Describe measurement in the Metric system (distance, weight and volume)
  - Convert measurement units within each system
3. Solve geometric problems containing lines or line segments, angle measurement and triangles.  
Potential Elements of the Performance:
  - Distinguish between a line and line segment
  - Recognize parallel and perpendicular lines
  - Name and measure an angle
  - Find the measure of angles given related information
  - Identify types of triangles
  - Find the measure of the third angle of a triangle
  - Identify similar triangles and their properties
4. Generate basic statistical data and interpret graphs  
Potential Elements of the Performance:
  - Analyze a series of numbers to determine mean, median and mode
  - Interpret and create tables of information
  - Interpret and create line and bar graphs, pie charts and pictographs

5. Perform operations using Real Numbers  
Potential Elements of the Performance:
  - Accurately add, subtract, multiply and divide using real numbers.
6. Solve problems using basic algebra  
Potential Elements of the Performance:
  - Identify an algebraic expression
  - Use algebraic symbols
  - Substitute real numbers for variables in an expression
  - Use order of operations to evaluate an expression
  - Identify terms and coefficients
  - Identify and combine like terms
  - Determine whether a given number is a solution for an equation
  - Solve algebraic equations

### III. TOPICS:

1. Percent
2. Geometry
3. Measurement
4. Statistics
5. Real Number System
6. Algebra

### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Hutchison, Bergman, Baratto. Basic Mathematical Skills with Geometry, 7<sup>th</sup> edition. McGraw-Hill, 2008.

### V. EVALUATION PROCESS/GRADING SYSTEM:

At the completion of each unit, a unit test is given. The test must be passed at a minimum of 60%. At the completion of all 5 units, a demonstration project must be submitted. A grade of 75% is required for the demonstration project. The final mark is calculated as an average of the unit test and the demonstration project marks. The following semester grades will be assigned to students:

The following semester grades will be assigned to students:

*As modified from post-secondary courses.*

<b>Grade</b>	<b><u>Definition</u></b>
A+	90 – 100%
A	80 – 89%
B	70 - 79%
C	60 - 69%
F	59% and below
W	Student has withdrawn from the course without academic penalty.

**VI. SPECIAL NOTES:****Attendance:**

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. *<Optional: It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.>*

**Special Needs:**

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

**Exemption from Topics:**

Depending on the student's performance on the placement test, and at the discretion of the professor, credit may be given for any of the units of this level.

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon demonstrating proof of same and at the discretion of the professor.