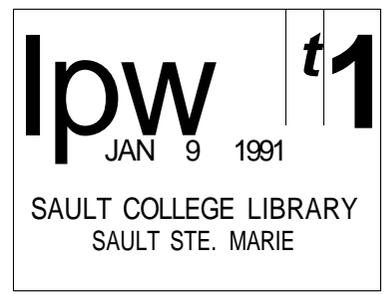


SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: COLLEGE PREPARATORY MATHEMATICS
CODE NO.: MTH 094-5 SEMESTER:
PROGRAM: NATIVE EDUCATION PROGRAM
AUTHOR: J. MCGAULEY
DATE: DEC. 1990 PREVIOUS OUTLINE DATED:

APPROVED:  /DATE
DEAN



COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

TOTAL CREDIT HOURS: 75

PREREQUISITE(S): NONE

I. PHILOSOPHY/GOALS:

The objectives of this course are to increase the student's speed, accuracy and skill in performing basic arithmetic calculations. Practical problems involving arithmetic calculations are studied.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will be able to:

1. Perform arithmetic operations involving whole numbers, decimals and fractions.
2. Solve percentage problems and find the number or base.
3. Perform arithmetic operations involving integers.

III. TOPICS TO BE COVERED:

- I. Whole numbers and their operations.
- II. Operations with and definition of fractions.
- III. Operations with and definition of decimals.
- IV. Percentage and conversion to decimals.
- V. Integers and their operations (if time permits).

IV. LEARNING ACTIVITIES

REQUIRED RESOURCES

Whole Numbers and their
Operations

TEXT: Basic Math Skills

Exercise:

- | | |
|--|---|
| 1.1 To determine the place value of a digit. | 1.1 (pg. 8-9)
1.5 (pg. 24-25) |
| 1.2 Write a numeral in words or write a numeral given its word name. | |
| 1.3 Add and subtract any group of whole numbers. | 1.6 (pg. 32-33) |
| 1.4 Round a whole number to any place value and estimate sums and differences by rounding. | |
| 1.5 Use the symbols < and >. | 1.8 (pg. 42-43) |
| 1.6 Solve word problems involving arithmetic operations. | 1.9 (pg. 51-52) |
| 1.7 Multiply and divide whole numbers by one or more digits. | 2.4 (pg. 75-76) |
| 1.8 Evaluate an expression using rules for the order of operation. | 2.6 (pg- 84)
2.7 (pg- 91-93)
2.8 (pg- 98-99) |
| 1.9 Evaluate expressions involving powers of whole numbers. | 3.3 (pg- 119)
3.4 (pg- 126)
3.6 (pg- 132-133)
3.7 (pg- 137-139)
3.8 (pg- 143) |
| 1.10 Find the average of a group of whole numbers. | |

LEARNING ACTIVITIES

REQUIRED RESOURCES

Operations with and
Definition of Fractions

- | | | |
|----|---|--|
| 1 | Find the prime factors of a whole number. | 4.2 (pg. 158) |
| 2 | Find the lowest common multiple of a group of numbers. | 4.4 (pg. 169) |
| 3 | Identify proper fractions, improper fractions and mixed numbers and convert from and one form to another. | 5.2 (pg. 196-197)
5.3 (pg. 201) |
| 4 | Reduce a fraction to lowest terms and compare the sizes of fractions. | 5.4 (pg. 204)
5.5 (pg. 210-211)
5.6 (pg. 218-219) |
| 5 | Perform arithmetic operations involving fractions. | 6.3 (pg. 239-241)
6.4 (pg. 250-252) |
| 6 | Find the least common denominator for a group of fractions. | 7.2 (pg. 266)
7.3 (pg. 270-272)
7.4 (pg. 277-278)
7.5 (pg. 287-288) |
| I. | <u>Operations with and
Definition of Decimals</u> | 7.6 (pg. 292-294) |

- | | | |
|---|--|---|
| 1 | Identify place values in decimal fractions. | 8.1 (pg. 319-320) |
| 2 | Write decimal fractions in words. | 8.2 (pg. 324-326) |
| 3 | Compare the sizes of decimal fractions. | .3 (pg. 330-331) |
| 4 | Perform arithmetic operations involving decimal fractions. | 8.4 (pg. 337-339) |
| 5 | Round a decimal to any specified decimal place. | 8.6 (pg. 347-349)
9.1 (pg. 358-360) |
| 6 | Convert a common fraction to a decimal and vice versa. | 9.2 (pg. 365-366)
9.4 (pg. 378-379)
9.5 (pg. 384) |

LEARNING ACTIVITIES

REQUIRED RESOURCES

Percentage and Conversion
of Decimals

Describe what is meant by percent.

11.1 (pg. 440-441)

Change a percent to a common fraction and vice versa.

11 (pg- 445-446)
11 (pg- 450-451)

Identify and find the rate, base and amount in an application.

11.4 (pg. 455-456)
11.5 (pg. 464-466)
11.6 (pg. 478-479)

Solve word problems involving percentage.

Integers and their
Operations

1 Describe what is meant by an integer.

14,.1 (pg- 597-598)
14,.2 (pg- 607)

2 Perform arithmetic operations involving signed numbers.

14,.3 (pg- 611-612)
14,.4 (pg- 618-619)
14,.5 (pg- 622-623)

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V. METHOD OF EVALUATION:

The final grade for this course is based upon a weighted average of test scores on the following basis:

90 - 100%	A+
80 - 89%	A
65 - 79%	B
55 - 64%	C
0 - 54%	R

A maximum of five topic tests will be scheduled throughout the semester.

VI. REQUIRED STUDENT RESOURCES:

TEXTBOOK: BASIC MATH SKILLS, 2nd Edition, Streeter and Alexander.

VII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

The exercises listed in this course outline are to be performed without the aid of an electronic calculator.