

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

COURSE OUTLINE

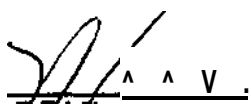
COURSE TITLE: COLLEGE PREPARATORY MATHEMATICS

CODE NO.: MTH 094-5 SEMESTER:

PROGRAM: NATIVE EDUCATION PROGRAM

AUTHOR:

DATE: JULY 1994 PREVIOUS OUTLINE DATED: JULY 1993

APPROVED: 
DEAN

/ffy 0? 2Y
DATE

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

TOTAL CREDIT HOURS: 85

PREREQUISITE: NONE

SUBSTITUTE: MTH 097

I. PHILOSOPHY/GOALS:

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

II. STUDENT PERFORMANCE OBJECTIVES:

The basic objectives are that the student develop an understanding of the methods studied, demonstrate a knowledge of the facts presented and show an ability to use these in the solution of problems. To accomplish these objectives, exercises are assigned. Test questions will be of near equal difficulty to questions assigned in the exercises. The level of competency demanded is the level required to obtain an overall passing average on the tests. The material to be covered is listed below.

III. TOPICS TO BE COVERED:

TIME FRAME:

I. Whole numbers and their operations.	20 hours
II. Fractions and their operations.	20 hours
III. Decimals and their operations.	15 hours
IV. Operations with percent.	20 hours
V. Integers and their operations (if time permits).	10 hours

85 hours

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

TEXT: BASIC MATHEMATICAL SKILLS WITH GEOMETRY
- James Streeter, Donald Hutchinson, and Louis Hoelzle. THIRD EDITION

Exercises are to be done without the aid of a calculator.

1.0 WHOLE NUMBERS

Exercises:

1.1 Determining the place value of a digit.
Writing a numeral in words.
Writing a numeral, given its word name.

1.1 (pg.9-10)

1.2 Adding any group of whole numbers.

1.5 (pg.29-30)

1.3 Rounding a whole number to any place value.
Estimating sums by rounding.
Using the symbols < and >.

1.6 (pg. 43-46)

Subtracting whole numbers.
Estimating differences by rounding.

1.8 (pg. 57-62)

1.5 Solving word problems involving addition and subtraction of whole numbers.

1.9 (pg. 71-76)

1.6 Multiplying any two whole numbers.

2.4 (pg. 103-106)

1.7 Multiplying by whole numbers ending in zero.
Estimating products by rounding.

2.5 (pg. 111-114)

1.8 Order of operations

2.6 (pg. 117-118)

1.9 Solving word problems involving multiplication of whole numbers.

2.7 (pg. 127-132)

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

1.9	Dividing with zero and one. Dividing whole numbers by single digit numbers.	3.2 3.3	(pg. 157-158) (pg. 163-165)
1.10	Dividing whole numbers by two or three digit numbers.	3.4	(pg. 173-174)
1.11	Using the rules for the order of operations	3.6	(pg. 179-182)
1.12	Solving word problems involving division of whole numbers.	3.7	(pg. 189-192)
1.13	Finding the average of a group of whole numbers.	3.8	(pg. 195-198)
1.14	Powers of whole numbers.	2.8	(pg. 137-141)
2.0	<u>FRACTIONS</u>	Exercises:	
2.1	Finding the prime factors of a whole number.	4.2	(pg. 215-216)
2.2	Finding the lowest common multiple (LCM) of a group of numbers.	4.4	(pg. 229-230)
2.3	Identifying proper fractions, improper fractions and mixed numbers.	5.2	(pg. 259-260)
2.4	Converting from one type of fraction to another.	5.3	(pg. 265-266)
2.5	Equivalent fractions.	5.4	(pg. 269-270)
2.6	Simplifying fractions by reducing to lowest terms.	5.5	(pg. 277-280)

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

2.7	Building fractions.	5.6	(pg 289-292)
2.8	Multiplying fractions.	6.1 6.2	(pg- 299-300) (pg- 305-308)
2.9	Dividing fractions.	6.4	(pg- 331-334)
2.10	Finding the least common denominator (LCD) for a group of fractions.	7.2	(pg 349-350)
2.11	Adding fractions.	7.3	(pg- 355-358)
2.12	Subtracting fractions.	7.4	(pg- 363-366)
2.13	Adding and subtracting mixed numbers.	7.5	(pg- 375-378)
2.14	Solving word problems involving fractions.	7.6	(pg- 383-388)
3.0	<u>DECIMALS</u>	Exercises:	
3.1	Identifying place values in decimal fractions. Writing decimal fractions in words. Writing decimal fractions, given their word forms. Comparing the sizes of decimal fractions.	8.1	(pg- 411-414)
3.2	Rounding decimals.	8.2	(pg. 417-418)
3.3	Adding decimals.	8.3	(pg. 423-428)
3.4	Subtracting decimals.	8.4	(pg. 433-437)
3.5	Multiplying decimals.	8.5	(pg. 445-449)

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

3.6	Dividing a decimal by a whole number.	9.1	(pg. 467-470)
3.7	Dividing a decimal by a decimal.	9.2	(pg. 477-480)
3.8	Converting a common fraction to a decimal. Comparing the sizes of common fractions and decimals.	9.4	(pg. 493-495)
3.9	Converting a decimal to a common fraction.	9.5	(pg- 501-502)
4.0	<u>PERCENT</u>	Exercises:	
4.1	Describing what is meant by "percent".	11.1	(pg- 563-564)
4.2	Changing a percent to a common fraction or mixed number. Changing a percent to a decimal.	11.2	(pg- 569-572)
3	Changing a decimal or a fraction to a percent	11.3	(pg- 577-580)
4.4	Identifying and finding the rate, base and amount in an application.	11.4 11.5	(pg- 585-588) (pg- 597-600)
4.5	Solving word problems involving percentage.	11.6	(pg- 609-616)

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME**COURSE NUMBER****IV. LEARNING ACTIVITIES:****REQUIRED RESOURCES:**5.0 INTEGERS

Exercises:

5.1 Describing what is meant by an "integer".
Finding the opposite and absolute value of a number.

16.1 (pg. 829-832)

5.2 Adding signed numbers.

16.2 (pg- 841-844)

5.3 Subtracting signed numbers.

16.3 (pg- 849-852)

5.4 Multiplying signed numbers.

16.4 (pg- 859-862)

5.5 Dividing signed numbers.

16.5 (pg- 865-868)

COLLEGE PREP. MATH

MTH 094-5 (GAS)

COURSE NAME

COURSE NUMBER

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 passing grade will be based on a minimum final grading of 55%.

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

VI. REQUIRED STUDENT RESOURCES:

TEXTBOOK: BASIC MATH SKILLS, 3rd Edition, Streeter, Hutchison, and Hoelzle

VII. ADDITIONAL RESOURCE MATERIALS:

Consult the clerk(s) in the Learning Resource Centre and/or the Learning Assistance Centre.

VIII. 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.

Daily assignments and topic tests based on the exercises listed in this course outline are to be performed without the aid of an electronic calculator.