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

#### COURSE OUTLINE

Course Title: MATHEMATICS

Code No.: MTH 120-3

Program: CIVIL TECHNICIAN

Semester: ONE

Date: AUGUST, 1984

Author: J. McGAULEY

New: Revision:

APPROVED:

Chairperson

Date //

#### CALENDAR DESCRIPTION

MATHEMATICS
Course Name

MTH 120-3 Course Number

#### PHILOSOPHY/GOALS:

When the student has successfully completed this course he will have demonstrated an acceptable ability to pass tests based upon the course contents as listed elsewhere. If after completing the course, the student takes further courses (or employment) in which he is required to apply this material he should then, through practice, be able to develop a good command of this subject matter.

#### METHOD OF ASSESSMENT (GRADING METHOD):

The students will be assessed by tests. These tests will include periodic tests based upon blocks of subject matter and may, at the instructor's discretion include unannounced surprise tests on current work and/or a final test on the whole course. A letter grade will be based upon a student's weighted average of his test results. See also the mathematics department's annual publication "To the Mathematics Student" which is presented to the students early in each academic year.

### TEXTBOOK(S):

Person, R. "Essentials of Mathematics", (4th Edition), Wiley

### OBJECTIVES:

The basic objective is for the student to develop an understanding of the methods studied, knowledge of the facts presented and an ability to use these in the solution of problems. For this purpose exercises are assigned. Tests will reflect the sort of work contained in the assignments. 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 on the following page.

# MATHEMATICS for FIRST SEMESTER

## MTH 120-3

Topic No.	No. of Periods	Topic Description	Assignments	References
		PRACTICAL CALCULATING  Conversion of units, estimating, approximate numbers, scientific notation, calculators	Text Exer. 54-1, 3-3, 16-5	Text, Ch. 54, 1-5, 3-7, 16-10
	20	GEOMETRY AND MENSURATION  Principles of geometry as required for the following work:	Text Exer.	Text, Ch. 24-31
		Pythagorean theorem Mensuration of plane figures: triangle, rectangle, square, parallelogram, trapezoid, circle, regular hexagon Mensuration of solid shapes: cubes, prisms, cylinders, pyramids, cones, spheres, truncated pyramids and cones	24-2 (optional 25-1, 25-2 26-1, 27-1 28-1, 29-1 30-1, 31-1 and all Ch. Qu	
	18	ALGEBRA REVIEW ONE  Whole numbers, fractions, decimal fractions, percentage, square roots, fundamentals, zeros, exponents, roots and radicals, addition, subtraction, multiplication and division of algebraic expressions, elementary	Text Exer.  All exercises and quizzes except 3-3	Text, Ch. 1-10
		equations and their application, manipulation of formulas		