

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS
Code No.: MTH 120
Program: CIVIL TECHNICIAN
Semester: ONE
Date: AUGUST 1983
Author: K. G. CLARKE

New: Revision: X

APPROVED: [^] [^] j [^] [^]
 Chairperson

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MATHEMATICS

Course Name

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):

Washington - "Basic Technical Mathematics with Calculus", Benjamin Cummings

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(s).

MATHEMATICS
for
FIRST SEMESTER
CIVIL TECHNICIAN

<u>Topic No.</u>	<u>No. of Periods</u>	<u>Topic Description</u>	<u>Assignments</u>	<u>References</u>
1	6	PRACTICAL CALCULATING Conversion of units, estimating, approximate numbers, scientific notation, calculators	Text Exer. B1, B2, B3, C4, 1-5	Text App. B App. C 1-5
2	20	GEOMETRY AND MENSURATION Principles of geometry as required for the following work: 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.	Text Exer. D3 and additional problems	Text App. D
3	18	ALGEBRA REVIEW ONE Fundamentals, Zeros, Exponents, Roots and Radicals, Addition Subtraction Multiplication and Division of Algebraic Expressions, Elementary Equations and their application, Manipulation of formulas.	Text Exer. 1-1 to 1-4 1-6 to 1-12	Text Ch. 1 except 1-5