SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS

Code No.: MTH 118-4

Program: PULP & PAPER

Semester: TWO

Date: JUNE 6, 1983

Author: K.G. CLARKE

New: Revision:

APPROVED:

Chairperson Date

MATHEMATICS	MTH 118-4
Course Name	Course Number

PHILOSOPHY/GOALS:

When the student has successfully completed this course he/she 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/she 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 instructors 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/her test results. See also the mathematic's departments annual publication "TO THE MATHEMATICS STUDENT" for further details. This publication is made available 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 pages.

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCE
		Fractional Equations	Text Exercises 5-7 and 5-8 from #65 on	Text Ch. 5 5-7
		Quadratic Equations Factoring, Completing the Square, Formula	Text Exercises 6-1 to 6-4 and 13-3	Text Ch. 6 and 13-3
	10	Exponents and Radicals Integral and Fractional Exponents Simplest Radical Form Addition, Subtraction, Multiplication and Division of Radicals	Text Exercises 10-1 to 10-7 13-4	Text Ch. 10 and 13-4
		Exponential and Logarithmic Functions Definitions, Graphs of Functions, Properties of Logarithms, Logarithms to Base 10 using a calculator, Computations using Logarithms, Natural Logarithms using a calculator Logarithms to other bases, Exponential and Logarithmic Equations. Note: Since each student is expected to have a scientific calculator, the use of tables should be omitted. Also the use of log trig functions is unnecessary. In Ex. 12-7 the instructions should be modified to reflect the use of calculators	Text Exercises 12-1 to 12-5, 12-7, 12-8, parts of 12-10	Text Ch. 1 omit 12-6 and 12-9
		Ratios, Proportions, Variation	Text Exercises 17-1, 17-2 17-3	Text Ch. 17

PERIODS	TOPIC DESCRIPTION	ASSIGNNENTS	REFERENCE
12	Review of Basic Trigonometry Angles, Trigonometric Functions, Rt. Triangles, Trig Functions of Any Angle, Radian Measure, Sine Law, Cosine Law, Areas, Applications. Note: Since the student is expected to have a scientific calculator, the use of tables should be omitted. Also the instructions in exercises should be amended to avoid the use of loose approximations for It* (such as 3.14). For areas of triangles additional problems can be used or text exercises can be altered to require areas.	Text Exercises 3-1 to 3-6 7-1 to 7-5 8-4, 8-5 8-6 #17 on and additional problems	Text Ch. 3 7 8-4, 8-5
8	Analytic Geometry Definitions, straight line, circle, parabola, ellipse, hyperbola, translation of axes, general second degree equation. Graphical and algebraic solutions of systems of second degree equations.	Text Exercises 20-1 to 20-9 20-11 13-1, 13-2	Text Ch. 20 13-1, 13-2