Oik 'e?

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS

Code No.:   MTH 254-4

Program: CIVIL/CONSTRUCTION TECHNICIANS

Semester: III

Date: OCTOBER, 1985

Author: W. MAKI

New: Revision: X

CALENDAR DESCRIPTION

MATHEMATICS   MTH 254-4 CIVIL

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 on upon the course
topics as listed elswhere. 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 in this subject matter.

METHOD OF ASSESSMENT (GRADING METHOD);

   The students will be assessed by written tests, including major
periodic tests based upon large blocks of the subject matter and some
unannounced short quizzes on current work, the latter being given at the
discretion of the instructor. A final test on the whole course may also
be included. A letter grade will be based upon a student's weighted
average of all his test results. See also the mathematics department's
annual publication "TO THE MATHEMATICS STUDENT" for further details.
This publication is made available to the students early in each academic
year.

TEXTBOOK(S);

   Basic Tech. Mathematics with Calculus - A.J. Washington

   Analytic Geometry - College Manuscript (optional)

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.

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	REFERENCE
1	6	<u>Algebra Review</u> Special products, factoring exponents, radicals, formulas, simultaneous equations	pp. 5-36
2	9	<u>Analytic Geometry -• Straight Line Rectangular Co-ordinates</u> Distance between points on rect. system Slope Angle between two lines Straight line equations Distance from a point to a line	pp. 492-50
3	10	<u>Analytic Geometry</u> ^ <u>Conic Sections</u> Introduction - section through a cone The Circle - equations and graphs - tangent to a circle The Ellipse - equations and graphs General second degree equations Calculating point(s) of intersection of two curves	pp. 504-52
4	12	<u>Empirical Equations</u> Linear empirical equations Non-linear empirical equations	Rice & Kni 2nd Editio Ch. 6 - pp. 131-1 Ch. 14 - pp. 334-3
5	17	<u>Annuities</u> Accumulated value of an amount and an annuity Present value of an amount and an annuity Use of amortization tables	Handouts Available