SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title:	CALCULUS
Code No.:	MTH 578-4
Program	MECHANCIAL TECHNOLOGY
Semester:	IV
Date:	OCTOBER, 1985
Author:	J. SUFADY

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New Revision

APPROVED: 'Chairpe?son Date

CALENDAR DESCRIPTION

CALCULUS — MTH 578-4

COURSE NAME — COURSE NUMBER

PHILOSOPHY/GOALS:

Students studying mathematics at this level are those individuals where a certain degree of originality, a sense of logic and an ability to learn independently are required of them in their major subject area. This course serves to exercise these three requirements and to also give them a theoretj knowledge for their academic subjects.

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 u; in the solution of problems. For this purpose exercises are assigned. Test will reflect the sort of work contained in other assignments. The level of competency demanded is the level required to obtain an overall passing averc in the tests. The material to be covered is listed on the following page-

MEHTOD OF ASSESSMENT (GRADING METHOD);

1. Three - four tests per semester.

2. Final Grade is a weighted average of these tests.

3. A failing grade at the end of the semester can be upgaded by writing a two-hour comprehensive examination.

TEXTBOQK(S):

Washington, Allan, J., Technical Calculus With Analytic Geometry.

TOPIC NUMBER	PERIODS	TOPIC DESCRIPTION	REFERENCE
1	10	Differentials	4-1
		The indefinite integral	4-3
		The definite integral	4-5
		Area under a curve	4-4
		Review	4-9
2	22	Applications of the indefinite integral	5-1
		Areas, volumes, centroids moment of inertia, work, force	5-2 to 5-
		Other applications (optional)	5-8
		Review	5-9
3	17	The Trig Functions	6-1
		Derivatives of sine and cosine	6-3
		Derivatives of other Trig Functions	6-4
		The inverse Trig Functions and their derivatives	6-5 to 6-
		Applications	6-7
		Review	6-8
4	14	Exponential and Log Functions and their derivatives	7-1 to 7-
		Applications	7-4
		Review	7-5