

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

COURSE OUTLINE

Course Title                    MATHEMATICS

Code No.                        MTH 577-4

Program                        ELECTRICAL/BLECTRON^ TECHNOLOGY/COMPUTER ENGINEERING

Semester:                       IV

Date:                            JUNE, 1986

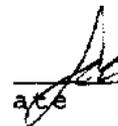
Author:                         J. REAL

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Revision:

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MATHEMATICS

MTH 577-4

COURSE NAME

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PHILOSOPHY/GOALS:

When the student has successfully completed this course he/she will have demonstrated an acceptable understanding of the course material as listed elsewhere-

The student should then be able to apply this knowledge in his/her studies of other courses in the program where there are applications of these mathematical concepts.

Upon graduation, the student should be able to develop a good command of this subject matter through additional practice.

METHOD OF ASSESSMENT (GRADING METHOD);

The student will be assessed by written tests only. There will be periodic topic tests at times mutually agreed upon (usually) by students and instructor. A letter grade will be assigned for the student's progress report based upon a weighted average of the student's 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):

TECHNICAL MATHEMATICS WITH CALCULUS - Calter

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MTH 577-4

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCES
18		<u>Derivatives of Trigonometric, Logarithmic, and Exponential Functions</u> -		Ch. 25
		Review identities		
		Sine and cosine functions	Ex. 1	
		Tangent, secant, cotangent, and cosecant functions	2	
		Inverse trigonometric functions	3	
		Review rules for exponents and logarithms		
		Logarithmic functions	4	
		Exponential functions	5	
18		<u>Integration</u> -		Ch. 26
		Indefinite integral	1	
		Antiderivatives		
		Power functions	2	
		Integration by substitution		
		Integration constants	3	
		Exponential and Trigonometric functions;		
		Integrals leading to logarithmic functions	4	
		Velocity and acceleration	5	
12		<u>Applications of Integration</u> -		Ch. 27
		The definite integral	1	
		Area under a curve	2	
		Area between curves		
		Volumes by integration	1	Ch. 28
		Work	7	
		Average and RMS values	8	
^		<u>Methods of Integration</u> -		Ch. 29
		Use of table of integrals	1	
		Additional applications of integral tables		

