

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

COURSE OUTLINE

Course Title: MATHEMATICS
Code No.: MTH 626-4
Program: AVIATION¹
Semester: II
Date: AUGUST, 1986
Author: J. REAL

New

Revision:

APPROVED:


Chairperson

^^^/M
Date

CALENDAR DESCRIPTION

MATHEMATICS

MTH 626-4

COURSE NAME

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PHILOSOPHY/GOALS:

This course is a continuation of MTH 613 as an elementary calculus course, including integration topics and applications - integration of algebraic trigonometric and inverse trigonometric functions, exponential and logarithmic functions. It is intended to give the student a mathematical understanding of many topics that arise in other courses.

METHOD OF ASSESSMENT (GRADING METHOD):

The student will be assessed by written tests only - three or four pre-scheduled, period long tests. A letter grade will be based on a student's weighted average of the test results. See accompanying Mathematics Department's grading system for range of marks for each letter grade.

TEXTBOOK(S):

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

MTH 626-4
AVIATION

TOPIC NUMBER	NO. OF PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCE
	12	<u>Applications of Integration</u> -		Ch. 5
		Applications of indefinite integral.	Ex. 1	
		Areas by integration.	2	
		Volumes by integration.	3	
		Centroids.	4	
		Moments of inertia.	5	
		Work.	6	
		Liquid pressure.	7	
	15	<u>Trigonometric and Inverse Functions</u> -		Ch. 6
		Review basic trig, relations, graphs, identities.	1 2	
		Derivatives of sine and cosine functions.	3	
		Derivatives of other trigonometric functions.	4	
		Inverse trigonometric functions and derivatives.	5 6	
		Applications.	7	
	14	<u>Exponential and Logarithmic Functions</u>		Ch. 7
		Review rules for exponents and logarithms.	1	
		Derivatives of logarithmic functions.	2	
		Derivatives of exponential functions.	3	
		Applications.	4	
		<u>Methods of Integration</u>		Ch. 8
		Integration by substitution	1-3	