SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	Technical Mathematics		
CODE NO. :	MTH 626-4	**SEMESTER:**	Four
PROGRAM:	Aviation (Flight)		
AUTHOR:	Math Department		
DATE:	May 2006	**PREVIOUS OUTLINE DATED:**	May 2005
APPROVED:			

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DEAN **DATE**

TOTAL CREDITS:	4
PREREQUISITE(S):	Math 613
HOURS/WEEK:	4

I. COURSE DESCRIPTION:

This course provides the student with a more advanced study of calculus. Topics of study include applications of integration, trigonometric identities, Newton's method, and differentiation of trigonometric, exponential, and logarithmic functions with an emphasis on applications.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Use integration to solve applied problems
2. Verify trig identities, and simplify trig expressions
3. Find the derivatives of all trig, inverse trig, exponential and logarithmic functions and use them in various applications

III. TOPICS:

1. Applications of Integration (cont'd) Chapter 26.4, 26.5, 26.6,
1.1 Newton's Method 24.2
2. Additional Topics in Trigonometry Chapter 20
3 Derivatives of Trig , inverse trig ,logarithmic and exponential functions Chapter 27

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Basic Technical Mathematics, Allyn J. Washington. Eighth Edition, Metric Edition, Addison-Wesley

2. Calculator: *(Recommended)* SHARP Scientific Calculator EL-531. *The use of some kinds of calculators, cell phones, and other electronic devices may be restricted during tests.*

V. EVALUATION PROCESS/GRADING SYSTEM:

Test 1 Topic1 and 1.1
Test 2 Topic 2
Test 3 Topic 3

Final Grade is a straight average of these 3 tests

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field /clinical placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

VI. SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 703 so that support services can be arranged for you.

Retention of Course Outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:
Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:
The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean’s secretary. Students will be required to provide a transcript and course outline related to the course in question.