

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Pre-Technology Math II

CODE NO. : MTH161-3

SEMESTER: TWO

PROGRAM: Pre-Technology

AUTHOR: Mathematics Department

DATE: January 2008

PREVIOUS OUTLINE DATED: August 2007

APPROVED:

CHAIR

DATE

TOTAL CREDITS: 3

PREREQUISITE(S):

HOURS/WEEK: 3 hours per week

Copyright ©2008 The Sault College of Applied Arts & Technology

Reproduction of this document by any means, in whole or in part, without prior written permission of Sault College of Applied Arts & Technology is prohibited.

*For additional information, please contact: Brian Punch, Chair -
The School of the Natural Environment, Technology and Skilled Trades.
(705) 759-2554, Ext. 2681*

I. COURSE DESCRIPTION:

This course is a continuation of MTH 160-3 (from Semester One) for pre-technology students. Topics of study include: quadratic, exponential and logarithmic equations; geometry, and trigonometric functions. A treatment of trigonometry of right and oblique triangles with applications is included. This course also includes an introduction to statistics.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Solve quadratic equations by factoring, using quadratic formula, and graphically.
2. Solve exponential and logarithmic equations.
3. Solve problems involving perimeter, area, volume, surface area, for simple and composite shapes and figures.
4. Solve problems using primary trigonometric ratios, the sine law and the cosine law.
5. Interpret, analyse and summarize two variable data graphically and numerically using a variety of tools and strategies.

III. TOPICS:

	Approximate Time
1. Quadratic Equations	8 hours
2. Exponential and Logarithmic Functions	8 hours
3. Geometry	8 hours
4. Right Triangle Trigonometry	6 hours
5. Oblique Triangle Trigonometry	7 hours
6. Introduction to Data Analysis	8 hours

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Washington, A. J., Triola, M.F., Reda, E. E. (2008). Introduction to Technical Mathematics (5th ed.). Toronto: Pearson Addison Wesley. ISBN-13: 978-0-321-37418-9
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:

There will be five tests each worth 20% of the final grade.

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
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 2703 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.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. 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.