

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY****SAULT STE. MARIE, ONTARIO**

Sault College

**COURSE OUTLINE****COURSE TITLE: Mathematics****CODE NO. : MTH259-3 SEMESTER: 3****PROGRAM: Truck and Coach / Heavy Equipment Technician****AUTHOR: The Mathematics Department****DATE: August 2008 PREVIOUS OUTLINE DATED: August 2007****APPROVED: "Brian Punch"**

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	<b>CHAIR</b>	<b>DATE</b>
<b>TOTAL CREDITS:</b>	<b>3</b>	

**PREREQUISITE(S): MTH153-3****HOURS/WEEK: Three (3)****Copyright ©2008 The Sault College of Applied Arts & Technology**

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*For additional information, please contact Brian Punch, Chair,*

*School of the Natural Environment, Technology, and Skilled Trades*

*(705) 759-2554, Ext.2681*

**I. COURSE DESCRIPTION:**

The objectives of this course are to introduce the student to a number of fundamental concepts that include measurement within the different systems and linking with precision and accuracy. The application of different areas of mathematics in the heavy equipment technology will be introduced. Topics will include algebra, geometry and trigonometry.

**II. STUDENT PERFORMANCE OBJECTIVES:**

The basic objectives are that the student develops an understanding of the methods studied, demonstrate knowledge of the facts presented and show an ability to use these in the solution of problems. To accomplish these objectives, exercises are assigned.

**III. TOPICS:****Topics to be Covered**

1. Measurement with Precision and Accuracy
2. Formulas
3. Trigonometry
4. Force, Energy, Work and Power
5. Simple Machines
6. Gas Laws

**Approximate Time Frame**

- 6 hours  
9 hours  
9 hours  
9 hours  
9 hours  
6 hours

**IV. LEARNING ACTIVITIES:**

<b>TOPIC NUMBER</b>	<b>TOPIC DESCRIPTION</b>	<b>REFERENCE CHAPTER ASSIGNMENTS</b>
<b>1.0</b>	Measurement with Precision and accuracy	Handouts
<b>2.0</b>	Formulas	Handouts
<b>3.0</b>	Trigonometry	Handouts
<b>4.0</b>	Simple Machines	Handouts
<b>5.0</b>	Force, Energy, Work and Power	handouts
<b>6.0</b>	Gas Laws	Handouts

**V. REQUIRED RESOURCES / TEXTS / MATERIALS:**

1. 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 three to five tests, each equally weighted.

The following semester grades will be assigned to students:

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

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 advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.