THE SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY
SAULT STE. MARIE, ON

COURSE OUTLINE

Course Title: Mathematics II

Code No.: MTH259-3 Semester: Three

Program: Mechanical Engineering Technician – Diesel

Author: Mathematics Department

Date: August 2005 Previous Outline Dated: August 2003

Approved: _____ _____
Dean Date

Total Credits: 3
Prerequisite(s): Mth 153-3
Hours/Week: 3

Mathematics II — MTH 259-3
Course Name — **Code No.**

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	**Approximate Time Frame**
1. Measurement with Precision and Accuracy	10 hours
2. Geometry and Problem Solving	8 hours
3. Ratio and Proportion	4 hours
4. Formulas	10 hours
5. Graphs	6 hours
6. Trigonometry	10 hours

IV. LEARNING ACTIVITIES:

TOPIC NUMBER	TOPIC DESCRIPTION	REFERENCE CHAPTER ASSIGNMENTS
1.0	Measurement with Precision and accuracy	Units 22 - 27 pp. 109-132
2.0	Geometry and Problem Solving	Units 28 & 29 pp. 133-139
3.0	Ratio and Proportion	Units 30 & 31 pp. 140-155
4.0	Formulas	Units 32 - 37 pp. 156-172
5.0	Graphs	Unit 38 pp. 173-188
6.0	Trigonometry	Handouts

V. REQUIRED RESOURCES / TEXTS / MATERIALS:

1. Text: Practical Problems in Mathematics for Automotive Technicians, 6th edition, Sforma, Sforma, and Moore (Thompson Delmar Learning).
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 four tests each worth 25% of the final grade.

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.