SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	Trade Calculations		
CODE NO. :	ASM100	**SEMESTER:**	1
PROGRAM:	Automotive Services Management Technician		
AUTHOR:	Dennis Clement-Socchia		
DATE:	August 2004	**PREVIOUS OUTLINE DATED:**	May 2003

APPROVED:

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DEAN **DATE**

TOTAL CREDITS:	3
PREREQUISITE(S):	N/A
HOURS/WEEK:	2

I. COURSE DESCRIPTION:

This course is intended to review and reinforce the elements of basic arithmetic, algebra and geometry. Students will be expected to apply the concepts involved in each of the above areas in the solution of problems as they pertain to the Trade.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. ***Complete Problems with Whole Numbers and Fractions***
   Potential Elements of the Performance:
   - Add, subtract, multiple and divide whole numbers
   - Add, subtract, multiple and divide decimal fractions
   - Solve problems using whole numbers and fractions.

2. ***Use Common Fractions***
   Potential Elements of the Performance:
   - Calculate fractional equivalents
   - Add, subtract, multiply and divide common fractions
   - Solve problems using both common and decimal fractions

3. ***Use both Average and Percent Calculations***
   Potential Elements of the Performance:
   - Calculate simple percent
   - Calculate discounts, profit & loss, commissions, interest and taxes
   - Determine averages

4. ***Imperial and Metric Units***
   Potential Elements of the Performance:
   - Convert between various Imperial Units of Measurements
   - Convert between various Metric Units of Measurement
   - Convert between Metric and Imperial Units of Measurement
   - Calculate the perimeter, area and volume for
     - rectangles and squares
     - right triangles
     - circles and cylinders

5. ***Determine Ratios and Proportions***
   Potential Elements of the Performance:
   - Define ratios and Proportions
   - Solve Problems involving ratio(s) and proportion(s)

6. ***Solve Problems using OHM's Law***
   Potential Elements of the Performance:
   - Define amperage, voltage and resistance
   - Identify series circuits
   - Identify parallel circuits
   - Identify series – parallel circuits
   - Solve problems involving the above circuit configurations

III. TOPICS:

1. Whole Numbers and Fractions
2. Common Fractions
3. Average and Percent
4. Imperial and Metric Units
5. Ratio and Proportion
6. Ohm's Law

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Practical Problems in Mathematics for the Automotive Technicians (5th Edition)
Scientific Calculator (c/w Percent, Square Root and Trigonometric Functions)

V. EVALUATION PROCESS/GRADING SYSTEM:

The final course grade will be calculated using the following list of weighted factors:

Tests*	=	60 %
Assignments*	=	40 %

* Assignments and Tests are due on the day and at the time specified. ***Late assignments will not be accepted while any missed test will count as a failure***. The only exception to this rule shall be those arising from legitimate extenuating circumstances explained via a written note from the student.
The following semester grades will be assigned to students in other than post-secondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	4.00
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 instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493 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.

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.