# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

# SAULT STE MARIE, ONTARIO



# COURSE OUTLINE

**COURSE TITLE:** Trade Practices

**CODE NO. :** MTF108 **SEMESTER:** ONE

**PROGRAM:** Metal Fabricator Technician / Welding Techniques

**AUTHOR:** Steve Witty
**INSTRUCTOR:** Paul Gobbi

**DATE:** January 2014 **PREVIOUS OUTLINE DATED:** September 2013

**APPROVED:** *"Corey Meunier"*

  CHAIR  DATE

**TOTAL CREDITS:** TWO

**PREREQUISITE(S):** N/A

**HOURS/WEEK:** TWO

Metal Fabricator Technician                                                     MTF 108

## I.  COURSE DESCRIPTION
This course covers all of the trade calculations and basic math skills a student will require to be work in the welding trade.

## II.  LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. ***Whole Numbers***
   Potential Elements of the Performance:
   - Addition of whole numbers
   - Subtraction of whole numbers
   - Multiplication of whole numbers
   - Division of whole numbers

2. ***Common Fractions***
   Potential Elements of the Performance:
   - Intro to common fractions
   - Measuring instruments
   - Addition of common fractions
   - Subtraction of common fractions
   - Multiplication of common fractions
   - Division of common fractions
   - Combined operations with common fractions

3. ***Decimal Fractions***
   Potential Elements of the Performance:
   - Introduction to decimal fractions, rounding, calculations.
   - Addition and subtraction of decimal fractions
   - Multiplication of decimals
   - Division of decimals
   - Decimal fractions and common fraction equivalents
   - Tolerances
   - Combined operations with decimal fractions
   - Equivalent measurements

4. ***Averages, Percentages, and Multipliers***
   Potential Elements of the Performance:
   - Averages
   - Percent and percentages (%)

### 5. *Metric System Measurements*
Potential Elements of the Performance:
- The metric system of measurements
- English-metric equivalent unit conversions
- Combined operations with equivalents units

### 6. *Computing Geometric Measure and Shapes*
Potential Elements of the Performance:
- Perimeter of squares and rectangles
- Area of squares and rectangles.
- Area of triangles and trapezoids
- Volume of cubes and rectangular shapes
- Volume of rectangular containers
- Circumference of circles, and perimeter of semicircular-shaped figures
- Area of circular and semicircular figures
- Volume of cylindrical shapes
- Volume of cylindrical and complex containers
- Mass (weight) measure

## III.   TOPICS:
1. Whole Numbers
2. Common Fractions
3. Decimal Fractions
4. Averages, Percentages, and Multipliers
5. Metric System Measurements
6. Computing Geometric Measure and Shapes

## IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:
- Books: First Year welding Bundle (Practical Problems in Math Welders 6th Edition)
- Fractional Calculator

## V.     EVALUATION PROCESS/GRADING SYSTEM:

### NOTES:

1. Late hand in penalties will be 10% per day.  Assignments will not be accepted past one week late unless there are extenuating and legitimate circumstances.
2. If a student misses a test/lab he/she must have a valid reason (i.e. medical or family emergency – documentation shall be required).  In addition, the instructor MUST be notified PRIOR to the test or lab sitting. If this procedure is not followed the student will receive a mark of zero on the test/lab with no make-up option.
3. Re-writes are NOT allowed for any written assignment, quiz or test.
4. Course attendance is mandatory. One percent (1 %) per hour will be deducted from the final course grade for unexcused* absence.

   Valid reasons would include:
   - Doctor's note
   - Family Death or Serious Illness supported by a written note.

### FINAL COURSE GRADES:

The final course grade will be determined by means of the following list of weighted factors:

| Factor | Value |
|---|---|
| Quiz | 50% |
| (4 quizzes each worth 12.5%) | |
| Test | 50% |
| (2 tests each worth 25%) | |
| Attendance | -1% per Unexcused Hour |

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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 |
| F (Fail) | 59% 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:

Electronic Devices, cell phones are not permitted in classroom.

### Attendance:
Sault College is committed to student success.  There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

## VII.    COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.