



**I. COURSE DESCRIPTION:**

Interpret blueprints, produce basic drafting drawings and bills of material.

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

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

**1. Interpret dimensioning systems, methods and tolerances to determine true object sizes and shapes.**

- Notes and specifications
- Dimensioning
- Holes
- Threads
- Welding symbols
- Welding procedures and specifications, notes
- Testing methods

**2. Produce manual detail drawings from engineered structural and plate fabrication drawings.**

- Applicable codes
- Elevation data
- Structural shapes
- Structural connections
- Center line position
- Hole patterns
- Gauge

**3. Interpret pressure vessel and associated piping drawings.**

- Applicable codes
- Top center line
- Quarter line
- Seam orientation
- Radial locations
- Non-radial locations
- Circumferential center line
- Dished and radioed heads
- Miscellaneous attachments
- Non-pressure parts
- Pipe drawing types
- Pipe and their schedules
- Pipe fittings
- Types of valves

- Symbols to identify piping systems components

**4. Produce bills of materials from a variety of drawings.**

- Structural
- Vessels
- Piping
- Plate

**III. TOPICS:**

1. DIMENSIONING SYSTEMS
2. DETAILED DRAWINGS
3. PRESSURE VESSELS AND PIPING
4. BILLS OF MATERIALS

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS**

- IPT Metal Trades Handbook
- Blueprint for welders

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Part 1 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 may 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. Repeats are NOT allowed for any shop test.
5. Course attendance is mandatory. One percent (1 %) per hour will be deducted from the final course grade for unexcused\* absence.

**[Any absence without a written, valid reason will be deemed unexcused.]**

Valid reasons would include:

- Doctor's note
- Court note

- Family Death or Serious Illness supported by a written note.

Part 2 Final Course Grades:

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

<b>Factor</b>	<b>Value</b>
<b><u>Quizzes</u></b>	60%
6 quizzes	10 % each
<b><u>Drawing Assignments</u></b>	40%
2 Drawings	20% each
Attendance	-1% per Unexcused Hour
Late	-1% per Late

The following semester grades will be assigned to students:

<b>Grade</b>	<b>Definition</b>	<b>Grade Point Equivalent</b>
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:**

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.