

I. COURSE DESCRIPTION:

A trades curriculum that has been designed to provide students with a combination of theoretical knowledge and hands on skill in relation to the safe use and operation of the Coordinate Cutting process.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. *Identify and Select Personal Protective Equipment for Oxy/Fuel Gas Operations*

Potential Elements of the Performance:

- identify proper eye, hand and face protection
- identify proper footwear and clothing
- identify and select filter lenses
- describe the effects of exposure to ultra violet and / or infra red radiation
- locate and identify shop ventilation controls
- locate and identify emergency exits
- locate and identify manifold shut-off valves for the shop gas system
- identify hazards associated with the Cutting processes
- understand emergency shop evacuation procedures

2. *Demonstrate and describe how to set up and operate a typical Cutting.*

- Potential Elements of the Performance:
- Complete full maintenance cycle to prevent equipment malfunction and damage.
- Identify all manual and automated control functions.
- Select proper tip sizing, and regulator settings for material.
- Set travel speed and torch height.
- Demonstrate proper set-up for all various fuel gasses.
- Describe all types of materials and thicknesses that can be used with the various fuels.
- Identify piercing methods corresponding to plate thickness.

3. *Demonstrate the ability to produce templates for cutting.*

Potential Elements of the Performance:

- Complete traceable drawing that conforms to part requirements.
- Calculate kerf for inside and outside cuts to ensure correct dimensions.
- Conserve material with layout techniques.
- Use multiple cutting attachments to complete production requirements.
- Clean finished components for fabrication.

III. TOPICS:

1. Personal Protective Equipment and Safety
2. Operation Procedures and Maintenance
3. Templates and Calculations

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Impact Resistant Safety Glasses (CSA Approved)
- High Cut (6 inch) Safety Work Boot (CSA Approved)
- Weld Gloves (CSA Approved)
- Modules: Handouts

V. EVALUATION PROCESS/GRADING SYSTEM:Part 1 NOTES:

1. Re-writes are NOT allowed for any written assignment, quiz or test.
2. Repeats are NOT allowed for any shop test
3. 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
- 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:

<i>Factor</i>	<i>Value</i>
Shop Assignments	65 %
Practical Tests	35 %
Attendance	-1% per Unexcused Hour
Late	-1% per Late
Shop Clean-up	-1% per Incident

The following semester grades will be assigned to students:

Grade	Definition	<i>Grade Point Equivalent</i>
A+	90 – 100%	
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:

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.

It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.

VII. COURSE OUTLINE ADDENDUM:

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