

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

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COURSE OUTLINE

COURSE TITLE : WELDING

CODE NO N/A SEMESTER: N/A

PROGRAM : MOTIVE POWER - COMMON CORE

AUTHOR: D. SOCCffIA

DATE: Aug 95 PREVIOUS OUTLINE DATED : Aug 94

APPROVED 
DEAN

~~P~~ 05/95
DATE

WELDING

N / A

COURSE NAME

CODE NO

TOTAL CREDITS

PREREQUISITE(S): An apprenticeship in one of the following trades: Motor Vehicle Mechanic,.. Truck / Coach Mechanic,.. Heavy Duty Equipment Mechanic,.. Farm Equipment Mechanic,.. or ... Fork Lift Mechanic.

I. PHILOSOPHY / GOALS : To provide a basic level of knowledge and skill related to the oxy-acetylene fusion welding, flame cutting and heating processes.

H. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES) :

Upon successful completion of this course the student will:

- 1) Demonstrate a working knowledge of the construction, operating principles, set-up and minor servicing requirements for the oxyacetylene welding, heating and flame cutting processes along with their respective equipment.

HL TOPICS TO BE COVERED.

**Approximate Time
Frames**

- 1) Course Introduction and Orientation
- 2) General Welder Safety (Oxyacetylene)
- 3) Construction of Oxyacetylene Fusion Welding and Flame Cutting Equipment
- 4) Principles of Operation for Oxyacetylene Fusion Welding and Flame Cutting Equipment
- 5) Correct Set-up and Safe Operation of Oxyacetylene Fusion Welding Equipment.
- 6) Fusion Welding Exercises on 16ga and 1/8 material.
(*** Shop Assignment ***)
- 7) Describe, Identify and Correct Common Fusion Weld Faults and Discontinuities.
- 8) Correct Set-up and Safe Operation of Oxyacetylene Flame Cutting Equipment.
- 9) Flame Cutting Exercises on Scrap Metal.
- 8) Basic Pre-Heating and Heat Treatment Exercises .
(*** Shop Assignment ***)
- 10) Final Theory Test

Total = 16 Hrs

IV. EVALUATION METHODS : (INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS, ETC)

General Assessment	Final Mark*
A = 85 - 100%	Shop Assignments 70 %
B = 75- 84%	Attendance (**See Attached) 30 %
C = 60- 74%	Ongoing Safety Evaluation (** See Attached)
D = 50- 59%	
F= 0- 49%	Total = 100%

V. PRIOR LEARNING ASSESSMENT :

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following:

1. The successful challenge of all three 'Shop (Welding) Assignments' *plus* the successful challenge of a written gas welding safety test compatible to the level of knowledge provided to apprentices taking this course of study.
- **OR** —
2. Written proof of at least five (5) years of competent trade experience involving the actual welding of automotive / heavy equipment **OR OTHER SIMILAR WORK** . *plus* the successful challenge of a written gas welding safety test compatible to the level of knowledge provided to apprentices taking this course of study.

VI. REQUIRED STUDENT RESOURCES :

C.S.A. Approved (High Cut) Safety Work Boots
C.S.A. Approved Safety (Impact Resistant) Glasses
Work Wear
Notebook, Paper, Pen or Pencil

Vn. SPECIAL NOTES:

Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities etc..) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

* Student evaluations concerning the *Final Mark* are further affected by the conditions set forth in the printed handout "Welding Department Guidelines". Be sure to obtain a copy from your instructor.

** Special guidelines for attendance and ongoing safety evaluations are included in the above paper.