

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

COURSE OUTMNE

WELDING

COURSE TITLE: _____

CODE NO: MVM700 SEMESTER: N/A

PROGRAM: MVM APPRENTICE - PHASE I (INTERMEDIATE)

AUTHOR: DENNIS SOCCHIA

DATE: Aug 94 PREVIOUS OUTLINE DATED: Mar 91

APPROVED: 
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WELDING

MVM700

COURSE NAME

CODE NO

TOTAL CREDITS

PREREQUISITE(S): Successful completion of the 'Common Core' (Basic) Level of in-school apprenticeship training.

L PHILOSOPHY / GOALS: To provide students with a basic level of skill in dealing with common arc welding equipment, safe work practices and procedures. Secondly, it should introduce a variety of techniques for welding in the flat and horizontal position using the F2, F3 and F4 electrodes.

H. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):

Upon successful completion of this course the student will:

- 1) Perform arc welding operations in a safe, well organized manner.
- 2) Produce fillet and simulated groove welds having sufficient quality to pass a typical visual and/or destructive test.
- 3) Develop an appreciation for the time and cost factors that are involved with welded repairs.

HL TOPICS TO BE COVERED.

**Approximate Time
Frames**

- | | |
|---|------|
| 1) Course Introduction and Orientation | |
| 2) Course Outline, Guidelines and Grading | |
| 3) Welder Safely | 3hrs |
| 4) Electrode Selection and Amperage Setting | |
| 5) Flat Welding Exercises using E6011, E7018 and E7024 on 16ga, 1/8 and 3/16 material.
(*** Shop Assignment ***) | 6hrs |
| 6) Electrode Selection and Amperage Setting | |
| 7) Horizontal Welding Exercises using E6011, E6013 and E7018 on 16ga, 1/8 and 3/16 material.
(*** Shop Assignment ***) | 6hrs |
| 8) Electrode Selection and Amperage / Voltage Setting | |
| 9) Welding Exercises using the Gas Metal Arc / Flux Cored Arc Process 3/16 and 3/8 material.
(*** Shop Assignment ***) | 6hrs |

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

General Assessment

A = 85 - 100%

B = 75 - 84%

C = 60 - 74%

D = 50 - 59%

F = 0 - 49%

Final Mark*

Shop Assignments

Attendance (**See Attached)

Ongoing Safety Evaluation (**See Attached)

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 MVM700 'Shop (Welding) Assignments' plus the successful challenge of a written arc 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 structural steel, heavy equipment **OR OTHER SIMILAR WORK.**

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

VH. 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 'Guidelines for Related Welding'. Be sure to obtain a copy from your instructor.

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