

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE. WELDING - INTERMEDIATE

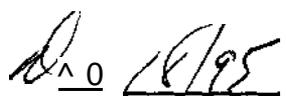
CODE NO.: STM 035 SEMESTER: 3 (8 Weeks)

PROGRAM: STEAM PRE-APPRENTICESHIP PROGRAM

AUTHOR: D. SOCCHIA

DATE:OCT/95 PREVIOUS OUTLINE DATED: NEW

APPROVED: 
DEAN


DATE

TOTAL CREDITS 3

PREREQUISITE(S): STM 025

I. PHILOSOPHY/GOALS:

To provide apprentices with a general working knowledge of the equipment, consumable, safe work practices and welder qualification tests related to the 'Shielded Metal Arc Welding' process.

II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):

Upon successful completion of this course the student will:

- 1) Set-up and operate basic arc welding equipment in a safe, well organized manner
- 2) Identify, select and operate standard arc welding electrodes
- 3) Identify and correct common weld faults
- 4) Recognize standard acceptance criteria for guided bend test coupons

III. TOPICS TO BE COVERED:

**Approximate Time
Frames (Optional)**

- 1) Course Introduction and Orientation
- 2) Safety in Arc Welding
- 3) Setting the Correct Polarity and Welding Amperage
- 4) Pad Exercise IF(6010/11 and 7018)
- 5) Electrode Classification, Storage and Handling
- 6) Electrode Selection
- 7) Fillet Weld Exercise I-2F (Lap and Tee Joints)
- 8) Common Weld Faults and Causes
- 9) Fillet weld Exercise II 2F (Clip Test c/w Stop and Restart)
- 10) Simulated Groove Weld Exercise I IG,2G (Flat and Horizontal)
- 11) ASME Section IX Acceptance Criteria (Welder Qualification)
- 12) Simulated Groove Weld Exercise II IG2G (Flat and Horizontal)
- 13) Preparation Weld Test Samples
- 14) Practical Test (CSA/ASME Based)
- 15) Theory Test

NOTE: Course material discussed and/or explained during any and all shop demonstrations are subject to evaluation via theory testing. Students are therefore responsible for the content of all shop demonstrations and/or discussions.

WELDING INTERMEDIATE
COURSE NAME

STM 03\$
CODE NO.

IV. LEARNING ACTIVITIES/REQUIRED RESOURCES

Topic/Unit - _____

Learning Activities:

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Topic/Unit -

Learning Activities:

Resourcgs:

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

General Assessment
A = 85 to 100%
B = 75 to 84%
C = 60 to 74%
D = 50 to 59%
F = 0 to 49%

Final Mark*
Shop Test(s) 70%
Theory Test 30%

Attendance (**See Attached)

NOTE: All material covered in shop lectures and demonstrations may be included in the final theory test.

VI. 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:

VII. REQUIRED STUDENT RESOURCES

CSA Approved (High Cut) Safety Work Boots
CSA Approved Impact Resistant Safety Glasses
Work Wear
Binder, Pen, Paper
Pen (blue or black ink)

VIII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY:

IX. SPECIAL NOTES

Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) 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.

Attendance to all classes is mandatory and will be recorded on an 'hour-by-hour' basis using the 'Record of Attendance Form'.