

#174

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

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SAULT STE. MARIE, ONTARIO


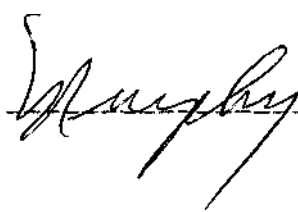
COURSE OUTLINE

Course Title: WELDING  
Code No.  
Program: HDE APPRENTICE - ADVANCED  
Semester:  
Date: 1989 05 19  
Author: Bob Senechal

New;

Revision: XX

APPROVED:

  
Chairperson 

Date: 

WELDING

Course Name

Course Number

**PHILOSOPHY/GOALS;**

This course will introduce the student to position welding with F3 and F4 electrodes.

Furthermore, the student is given an insight into weldability of common metals and alloys.

**METHODS OF ASSESSMENT (GRADING METHOD);**

MARKING SYSTEM	1 Theory Test	-	30%
	Skill Evaluation	-	60%
A -- 85%+	Attendance/Attitude	-	10%
B -- 75% - 84%	TOTAL	-	100%
C -- 60% - 74%			
D -- 50% - 59%			
F -- Repeat			

Instructors should provide marks in percentage. A mark of "D" must be balanced with a "B" (in another subject if necessary) to obtain a passing grade of "C" - average. Instructors should try for a class average of between 70 - 75%.

The instructor will determine which practical exercises will be used for grading.

**TEXTBOOK(S);**

Instruction aid sheets and notes taken by students.  
Students should be given a copy of the course outline.

**OBJECTIVES:**

The basic objectives are to teach the student proper techniques in position welding. Time does not permit to concentrate on actual weld quality.

The student should realize that all objectives may not necessarily be met due to time constraints.

SUMMARY - HDE APPRENTICE - ADVANCED

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	REFERENCE
	T-THEORY L-LAB		
1	1/2T	Introduction to program. - safety; personal, shop - maintenance of shop - machines and adjustments	Review of Intermediate I.A.S.#1
2a	1/2L	Generator; GOV and current adjustments	I.A.S.#2 Demo
b		- investigation of volt-ampere characteristics	
3	10L	Welding practices. - 2F; single pass, multi-pass welds with 1/8 E7018, E7024, E7028; 3/16 E6011 cross - pad welding; horizontal; vertical up 1/8 E7018 = E7014 - 3F; cross; rootpass 1/8 E7018, E6011, remaining passes 5/32 E7018, E6011 - 4F; 1/8 E7018	I.A.S.#3 Demo
4a	IT	Weldability of cast iron, stainless steel, manganese steel, aluminum alloys, copper alloys, L.A.H.S. steels (T-1 - plate)	I.A.S.#4
b	1/2L	Welding practice with cast iron rods, stainless steel rods, aluminum rods, bronze rods, hard facing rods.	
c		- Selection of rods.	
5	1/2L	FCAW introduction.	I.A.S.#5 Demo
6	1/2L	Arc air gouging (AAC)	I.A.S.#6 Demo
	1/2T	Written test.	

TOTAL HRS. 2T,12L - 7 WEEKS

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