

Minnesota State College Southeast

WELD 1410: SMAW - Principles of Stick Welding

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: 6

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is designed to give the student the fundamentals of stick welding in an application setting. The student will learn the basics of machine set up, proper nomenclature, and rod choices as well as the art of striking an arc, controlling the arc and creating a controlled puddle. The student will perform various weld joints with different metal thicknesses and be able to identify the differences between an acceptable and unacceptable weld. (Prerequisite: None) (3 credits: 0 lecture/3 lab)

B. COURSE EFFECTIVE DATES: 03/03/2008 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Demonstrate safety practices
2. Identify different types of electrodes and their uses
3. Identify proper application of different electrodes
4. Identify different types of welding equipment
5. Demonstrate safe set-up and start-up of welding equipment
6. Demonstrate striking a proper arc
7. Demonstrate maintaining a proper arc
8. Demonstrate a stringer bead and maintain proper size
9. Demonstrate welding in the flat position
10. Demonstrate welding a proper lap weld in the flat position
11. Demonstrate welding a proper fillet weld in the flat position
12. Demonstrate proper cleaning of a weld
13. Demonstrate proper inspection of a weld
14. Identify the differences between good welds and bad welds
15. Demonstrate the proper way to make repairs to a weld
16. Demonstrate proper maintenance of welding equipment
17. Demonstrate proper shut-down of welding equipment

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted