

Minnesota State College Southeast

WELD 1455: Trades Enhancement Welding

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Students will be introduced to different welding and cutting processes. Covered in this course will be proper weld fusion, heat distortion, penetration, and their effects to the parent material. Students will learn the basics of proper welding and cutting machine set up from turning the machine on and off and identification of machine parts to demonstrating and identifying the differences between good quality welds and poor quality welds. Students will be introduced to and demonstrate weld shop safety and practice, and proper compressed cylinder transport and storage. (3 credits: 2 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 02/23/2015 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Introduce and demonstrate proper welding and cutting techniques
2. Identify welding shop hazards such as electrical, chemical, heat and fire dangers
3. Proper compressed cylinder handling and storage
4. Importance of shop cleanliness

D. LEARNING OUTCOMES (General)

1. Identify safe practices and dangers when working in a weld shop
2. Demonstrate proper storage of compressed gases
3. Examine the effects of heat distortion
4. Demonstrate safe set up, start up, and shut down of equipment
5. Demonstrate proper oxy-fuel and plasma cutting processes
6. Demonstrate proper welding techniques while using GMAW and GTAW welding processes
7. Introduce and perform welding techniques in the 1G, 2G, 3G, and 4G welding positions
8. Avoid weld shop hazards
9. Perform proper weld shop shut down procedures
10. Demonstrate daily shop cleanliness

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted