**Elgin Community College**

**Course Outline**

WEL0220 MIG Welder Qualification

Instructor: David Reich

Phone: 847-214-7235

Prerequisite: WEL 102 or one year experience in MIG welding

Description:

Welder certification is required by an increasing number of area employers. The purpose of this class is to help the student attain MIG welder certification. Students must pass two guided bend tests to receive certification. This certification will meet the requirements of AWS D1.1 Structural Welding Code (limited thickness) and the needs of many area manufacturers. However, some employers may require additional or re-certification. 2 Credit Hours

Supplies Required

Samples of:

1. Material properly prepared prior to welding

2. Properly/improperly welded test samples

3. Properly/improperly ground test samples

4. Good and bad quality tested samples

Course Outline

A. Introduction

 1. Review of AWS D1.1 structural

 a. Requirements

 b. Limitations

 c. Forms

 2. Demonstration of the certification process

 a. Material preparation

 b. Machine settings

 c. Perform sample welds

 d. Preparation of weld coupons

 e. Test weld coupons

B. Student Weld Practice

C. Student Qualification Welds

D. Student Weld Coupon Testing

E. Evaluation

Course Content Outcomes

To provide students an opportunity to practice and polish skills necessary to pass a welder qualification test to meet AWS D1.1

To provide students with information pertaining to the qualification test

To allow the student to attempt to pass a welder qualification test as spelled out in AWS D1.1

To provide students with a certificate indicating the specifics of the welder qualification test which the student passed

Measures of Student Performance

Pass/no credit based on successful completion of qualification test as spelled out in ASW D1.1 Structural Welding Code

This course meets the agreed upon terminal objectives for the Welding Program.

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