

**Western Iowa Tech Community College
Course Outline of Record**

Date: 03/06/2014

Prefix & No.: WEL 112 Course Title: Welding Blueprint Reading/ Advanced

Semester **Credit** Hours: 2.00

Lecture **Contact** Hours per Semester: 32.00

Lab **Contact** Hours per Semester: 0.00

Clinical **Contact** Hours per Semester: 0.00

OJT or Internship **Contact** Hours per Semester:

Course/Lab Fee: Yes No

Pre and Post Assessments: __

Course Description

This course presents the use of blueprints for transfer of ideas and information. It covers how to read blueprints with special emphasis on welding blueprints, including lines, views, material descriptions, welding joints, pipe symbols and inspection and testing. This course emphasizes the application of concepts.

Prerequisite: WEL 110 Welding Blueprint Reading

Corequisite: None

Course Needs Statement

This course was developed through the DACUM process to meet the local industry needs and national certification requirements for WITCC welding students.

Required Textbooks and/or materials

Yes No Other

Course Objectives:

The course will provide information which should enable the student to:

1. Clarify auxiliary views
2. Identify all section views
3. Explain the process of development for developed views
4. Use detail, assembly, and subassembly prints
5. Interpret all welding symbols
6. Identify welding abbreviations
7. Relate basic weld joints to appropriate weld symbols

Content Outline

- I. Welding Symbols
 - A. Fillet welds
 - B. Groove welds
 - C. Backing and melt through welds
 - D. Plug and slot welds
 - E. Surfacing welds
 - F. Flange welds
 - G. Spot welds
 - H. Projection welds
 - I. Seam welds
 - J. Stud welds
- II. Welding Joints
 - A. Butt joint
 - B. Lap joint
 - C. Tee joint
 - D. Edge joint
 - E. Corner joint
- III. Pipe Welding Symbols

- A. Layouts
- B. Dimensions
- IV. Inspection and Testing
 - A. Destructive testing
 - B. Non Destructive testing

Assessment

Course Competencies

At the conclusion of the course, the student will be able to:

1. Interpret welding symbols and abbreviations
2. Interpret all standard welding joints and positions
3. Apply symbols for pipe layout
4. Interpret all symbols for inspections and testing requirements

Addendum

Prefix & No.: WEL 112 **Course Title:** Welding Blueprint Reading/ Advanced

Key words:

Required Textbooks and/or Materials

Title: Blue Print Reading for Welders

Author: A. E. Bennett and Louis Siy

Edition: Current

Publisher: Delmar

ISBN-13:

ISBN-10:

Other Materials: 30, 60, 90 degree triangle, 45 and 90 degree triangle, French curve, protractor, compass, and architect scale

Course/Lab Fee: \$0.00

Rationale (usage) for lab fees:

Additional Information:

Common Final: Yes No

See Division Chair for facility and equipment needs.

Reminder: Each Course Outline of Record is expected to be reviewed every five (5) years.

Attached Files: