**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **I. GENERAL COURSE INFORMATION**

Course Number: WELD 1353

Course Title: Blueprint Reading – Welding

Credit Hours: 3

Prerequisite:

Division/Discipline: Workforce Training and Community Education/Welding

Course Description: Through a variety of classroom and/or shop/lab learning and assessment activities, the students in this course will: identify basic lines, views, and abbreviations used in blueprints; interpret basic 3D sketches using orthographic projection and blueprints; solve applicable mathematical equations; use basic measuring tools; interpret scale ratios on a blueprint; identify basic welding joints and structural shapes; interpret a Bill of Materials; identify standard AWS weld symbols.

# **II. INSTRUCTOR INFORMATION**

# **III. COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The college reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at disabilityservices@bartonccc.edu.

# **IV. COURSE AS VIEWED IN THE TOTAL CURRICULUM**

This is one of a series of technical courses for the Welding Technology Certificate program. This course is designed to develop useful, job-oriented skills. It is highly recommended for individuals entering the fields of manufacturing, automotive and heavy equipment repair, or the machine trades.

This course is not intended for transfer.

# **V. ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes, Competencies, and Supplemental Competencies:

1. Identify basic lines, views, and abbreviations used in blueprints; interpret basic 3D sketches using orthographic projection and blueprints
	1. Identify types of lines associated with industrial blueprints
	2. Identify the views associated with an orthographic projection
	3. Identify the placement of the views of an orthographic projection on a 2D surface
	4. Utilize abbreviations where appropriate
	5. Describe each view of an orthographic projection
	6. Explain the part based on the view
	7. Accurately layout the part based on the sketches tolerances
2. Solve applicable mathematical equations; use basic measuring tools; interpret scale ratios on a blueprint
3. Demonstrate use of fractions and decimals
4. Compute areas
5. Compute volumes
6. Use basic geometric equations
7. Use a variety of measuring tools and layout devices appropriate to the task
8. Read a tape measure to a minimum of 1/16th of an inch or 1 mm
9. Apply appropriate mathematical principles to assigned tasks
10. Identify basic welding joints and structural shapes; interpret a Bill of Materials; identify standard AWS weld symbols.
11. Identify welding joints
12. Identify structural shapes
13. Identify the material description
14. Identify the quantities of materials
15. Identify parts and item numbers
16. Identify a joint design
17. Identify a weld process
18. Identify other symbol's components

# **VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS**

**VIII. REFERENCES**

# **IX. METHODS OF INSTRUCTION AND EVALUATION**

# **X. ATTENDANCE REQUIREMENTS**

**XI. COURSE OUTLINE**