

# Dakota County Technical College

## WELD 1150: Print Reading I

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

In this course the student will learn how to interpret drawings related to the manufacture of metal products from simple single part drawings to more complex multipart drawings. Welding symbols, drawing symbols, material specifications, and basic fabrication methods will be studied also. Prerequisites: None

**B. COURSE EFFECTIVE DATES:** 08/27/2012 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

#### **D. LEARNING OUTCOMES (General)**

1. Understand and explain who uses drawings and why
2. Understand the use of the terms drawings, blueprints, and prints
3. Be able to identify the parts of a drawing
4. Locate areas of a drawing by using drawing zones
5. Be able to identify different types of engineering drawings
6. Identify the types of lines used on drawings
7. Begin to understand when why and how each type of line is used
8. Identify and understand the difference between pictorial and orthographic projection
9. Identify the basic views in an orthographic projection drawing
10. Demonstrate the ability to locate and determine the lines required on drawings
11. Recognize all types of dimensions
12. Understand how dimensions shown on a drawing relate to the manufacture of a part
13. Understand and know how to apply and work dimensional problems with tolerances
14. Be able to identify notes and specifications
15. Be able to identify different hole types
16. Be able to interpret thread specifications
17. Understand the importance of identifying and using the required metal for the job
18. Have a basic understanding of how the industry classifies metals
19. Be able to identify and name the typical standard shapes used in industry
20. Understand how the different materials are described in a bill of materials list
21. Be able to identify and name the five basic types of weld joints
22. Be able to identify and name the basic edge shapes
23. Be able to identify and name the types of edge preparation for each of the weld joints
24. Be able to identify and name the basic weld types and the terms that apply to each
25. Know what welding symbols are and why they are used
26. Know the standard weld symbols
27. Be able to interpret basic welding symbols properly
28. Be able to interpret welding symbols that include all of the information that could be used
29. Be able to identify the different kinds of additional views
30. Be able to interpret and understand the additional views
31. Understand what standards are and why they are important
32. Understand the ISO system for designating welding on drawings
33. Understand a basic overview of some additional specifications that may be on drawings
34. Master the interpretation of multiple part drawings

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

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted