

# Dakota County Technical College

## ETSA 1523: Print Reading

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This is a foundational course in industrial print reading. This course is designed for students who have no previous experience with print reading. The primary goals of this course are to help individuals acquire a solid foundation in print reading, mechanical drafting concept, machine layout tools to transfer measurements from drawing to stock. Understand piping and instrumentation diagrams (P&ID).

**B. COURSE EFFECTIVE DATES:** 09/08/2010 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. demonstrate a working knowledge of mechanical drafting concepts and practices by accurately drawing a drill gauge
2. demonstrate the ability to read a mechanical drawing
3. describe the three principal views and dimensions of a 3-view drawing and accurately draw a 3-view of a simple object
4. discuss the major flow path found on a P&ID example
5. explain the basic rules of interpreting a mechanical drawing
6. explain the purpose of common mechanical drafting equipment including the protractor, compass, scale and angles
7. explain the requirements of an isometric drawing and produce an accurate isometric drawing of a simple object
8. identify information found on a title block using a P&ID
9. identify types of valve operators used including pneumatic (diaphragm) motor, hydraulic, and solenoid operated using a P&ID legend
10. identify valve symbols used on piping and instrumentation diagrams including gate, globe, butterfly, check, and safety valves using a P&ID legend
11. perform basic sketching techniques
12. recognize commonly used drafting lines and briefly explain what each line represents

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted