



## TEWT 1165 – BLUEPRINT READING FOR WELDERS

### COURSE DESCRIPTION:

Study of welding blueprint reading, sketching, and drawing, including a special study of welding symbols, layout work and materials. Apply learned skills to class projects. Historical evolution of blueprints will be covered.

### CREDIT HOURS: 2

### REQUIRED TEXT:

Welding Print Reading, 6<sup>th</sup> Edition, John R. Walker and W. Richard Polanin  
Goodheart-Wilcox Publishers  
ISBN 978-1-60525-911-6

### LEARNING OUTCOMES:

Upon completion of this course the student will be able to understand and perform basic functions related to:

- Understand and Interpret the Alphabet of Lines and Correctly Interpret Shop Drawings, Identify the Different Types of Prints, Use and Interpret Different Print Formats, Students will be able to Perform Basic Shop Sketching & Drawing
- Demonstrate use of Measuring Tools & Devices, Perform Basic Mathematical Functions, Fractions & Decimals, Metrics, Perform Basic Functions of Plane Geometry, Interpret Dimensioning Information found on Welding Prints
- Identify different Welding Processes and Threaded Fasteners, become familiar with different metals, Their Characteristics, Structural Shapes & Forms, Identify Common Types of Joint Designs and Welds, Understand and Interpret AWS Welding Symbols System
- Interpret Fillet Weld Symbols, Groove Weld Symbols, Plug & Slot Weld Symbols, Spot, Seam, and Projections Weld Symbols, Interpret Surfacing Weld Symbols, Interpret Edge Weld Symbols, Pipe Welding Symbols and Brazed Joints Symbols
- Recognize Basic Metalworking Processes, Understand Methods of Examining and Testing Welds

### REQUIRED ASSESSMENTS:

- Faculty evaluation of student competency assessments submitted at their completion.
- Written Quizzes and Examinations

A 93% and above  
A- 90% – 92.9%  
B+ 87% – 89.9%  
B 83% – 86.9%  
B- 80% – 82.9%  
C+ 77% – 79.9%  
C 73% – 78.9%  
E Below 72.9%

Attendance and Participation	10%
Homework	30%
Quizzes	60%
<b>Total</b>	<b>100%</b>

**MATERIALS:**

- #2 Pencils
- Eraser
- 12" Ruler
- Calculator

**ATTENDANCE:**

It is expected that students attend class regularly and on time to ensure they make satisfactory progress toward course/program completion. Attendance is tracked and reported as required to sponsoring agencies and Financial Aid when applicable. It is the student's responsibility to contact their instructor when they are absent. Contact the academic advisor if missing a week or more.

Students missing two weeks will be automatically dropped from the course/program. The Salt Lake Technical College at SLCC has a ***no make-up policy***.

**TARDINESS:**

Students are expected to be on time for class. If more than 15 minutes late for class, you are considered late, and your time will be reduced on the attendance form. Tardiness will affect your attendance and training progress.

**MEANINGFUL CONTACT:**

**Students are required to have two-way meaningful contact with an instructor at least once per week.** Meaningful contact should consist of classroom instruction or discussion about how the student is progressing.

Two-way meaningful contact can be:

- Face-to-face in the classroom
- Online contact
- Telephone contact between student and instructor

**STUDY:**

We suggest that the majority of the theoretical studies be completed outside of the classroom hours. This allows time to be used more efficiently pertaining to skills competencies.

**STUDENT RESPONSIBILITIES:**

It is your responsibility to complete all the materials as outlined in the learning modules. It is also your responsibility to ask for help when material is unclear and needs further clarification. Please maintain lab tools and equipment and clean **ALL** your workstations at the completion of your lab class. Please approach the instructor with any situation or conditions that might interfere or affect your progress and success.

Mobile phones may be used in the classroom but must be on silent or vibrate mode. If you receive a call, please leave the classroom briefly. Making telephone calls and/or texting during class should be restricted for urgent or emergency purposes only.

**INSTRUCTOR'S RESPONSIBILITIES:**

The instructor(s) will, to the best of their ability, ensure that you have the materials, equipment, and items required for completing the learning modules. It is also the responsibility of the instructor to

assist you in the learning process and to accomplish the goals of the program. The instructor will also monitor and help to ensure satisfactory process. The instructor will also address any issues that affect the student and program.

**MAJOR INSTRUCTIONAL AREAS:**

- Basic Lines and Views
- Sketching
- Notes and Specifications
- Dimensions
- Material Identification, Properties & Characteristics
- Bill of Material
- Structural Shapes
- Other Views
- Sections
- Detail, Assembly, and Subassembly Prints
- Welding Symbols and Abbreviations
- Basic Joints for Weldment Fabrications
- Fillet Welds
- Groove Welds
- Back or Backing and Melt-Thru Welds
- Plug and Slot Welds
- Surfacing Welds
- Edge Welds
- Spot Welds
- Projection Welds
- Seam Welds
- Stud Welds
- Applied Metrics for Welders
- Pipe-Welding Symbols
- Dual Dimensioning
- Inspection and Examination
- International Standard Symbols for Welding
- Introduction to Computer Aided Drafting
- Introduction to Geometric Dimensioning and Tolerancing