SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGIES AND SKILLED TRADES DIVISION
WELDING TECHNOLOGY
COURSE SYLLABUS
November 21, 2025

I. CATALOG DESCRIPTION

Course Number: WELD1128
Course Title: Blueprint Reading & Welding Symbols
Prerequisite/Co-requisite: WELD1123

Catalog Description: Introduction to blueprint reading, drawing, layout and building procedures. Interpretation of different drawing styles and welding symbols. Physical drawing and building projects.

Credit Hours: 2.5
Classroom Hours: 30
Lab Hours: 23
Total Contact Hours: 53

II. COURSE OBJECTIVES: *Course will:*

- **A.** Provide the student an understanding of blueprints and their applications.
- **B.** Provide the student an understanding of and be able to draw all parts of a basic print from information given.
- **C.** Provide the student the ability to identify all structural shapes and apply information to a bill of materials or purchase order.
- **D.** Provide the student an understanding of all welding symbols related to the welding industry.
- **E.** Provide the student with the ability to interpret industrial drawings and answer questions about them.
- **F.** Provide the student with the ability to create a part based off a blueprint.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

A. STUDENT LEARNING OUTCOMES: *The student will be able to:*

1. Interpret multi-view orthographic projections, auxiliary views, section views, and associated dimensions/tolerances on manufacturing and fabrication blueprints.
2. Identify and explain the meaning of all elements of AWS welding symbols (arrow, reference line, tail, weld symbol, supplementary symbols, dimensions, etc.) in accordance with AWS A2.4 standards.
3. Draw complete, standard-compliant welding symbols on sketches or engineering drawings to correctly specify required welds for given joints and assemblies.

B. GENERAL LEARNING OUTCOME:

GELO #3: Critical Thinking & Problem Solving

Outcomes:

1. Collect, identify, interpret and analyze data.
2. Synthesize information to arrive at reasoned solutions to problems.
3. Evaluate ideas presented in writing, medial, speech, or artistic presentations.

4. Evaluate the validity of arguments, alternatives, data, outcomes and/or impacts of actions.
5. Acquire and integrate knowledge and construct relationships across disciplines

IV. CONTENT/UNIT OF INSTRUCTION

- **A.** Review of basic print reading
- **B.** Line types
- **C.** Basic print views
- **D.** Sketching/Drawing views
- **E.** Title blocks/Notes/Specifications
- **F.** Dimensioning
- **G.** Reading and drawing in scale
- **H.** Structural shapes
- **I.** Bill of materials
- **J.** Other views (auxiliary, detail, section, assembly, etc.)
- **K.** Welding symbols
- **L.** Basic joints/welds for industrial fabrication and their welding symbols
- **M.** Pipe welding symbols
- **N.** Inspection and testing symbols
- **O.** Drawing of basic prints
- **P.** Interpretation of industrial drawings used in the welding industry

V. INSTRUCTIONAL MATERIALS

Required Text(s): Refer to Course Information Document and/or course instructor for required text(s).

Other Resources: Supplemental handouts supplied by instructor
Notebook

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecturing
2. Video presentations
3. Interpretation of industrial prints

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of the following:

1. Written assignments
2. Written tests and quizzes

Letter grades will be based on the SCC Standard Grade Scale Policy. **Note:** See course information document for specific details on how the course grades will be calculated.

VIII. SPECIFIC COURSE REQUIREMENTS

A. Successful completion of all assignments, exams, and drawings.

B. Grading

1. It is the students' responsibility to make up work when absent.
2. If a student misses an exam or practical test, due to an unexcused absence, a grade of zero (0) will be given.

3. All assigned work must be turned in on the day due or a late grade will be given (10% deduction each late day).
4. The instructor reserves the right to revise assignments and/or grading scale in accordance to the progress of the class at any time of the quarter.
5. Minimum course grade of C (70 Percent) is required.