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

I. CATALOG DESCRIPTION

Course Number: WELD2340
Course Title: Welding Measurement and Layout
Prerequisite: WELD1128 with a grade of 'C' or higher

Catalog Description: Explanation of layout procedures used in the welding and fabrication industry.

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

II. COURSE OBJECTIVES: *Course will:*

A. Demonstrate geometric construction and layout techniques for sheet metal, pipe, and tubing.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

1. Accurately read and interpret measurements using a tape measure and other precision tools. Calculate dimension, tolerances and allowances that meet industry standards.
2. Perform accurate layout techniques on various metal types/shapes and while working efficiently.
3. Understand jig/fixtures while utilizing forming and cutting equipment.
4. Utilize quality control systems to endure desired part dimensions and finishes.
5. Demonstrate safe use of all tools/equipment and follow shop procedures.

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/UNITS OF INSTRUCTION

A. Geometric Construction
B. Make a Box with Lid on the Box and Pan Brake
C. Make a Chimney on the Slip Roller
D. Angle Turns for Welded Pipe Fittings
E. Branch and Header Connections for Pipe

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
Calculator
Tools/supplies for the 1st term listed on the Welding Technology Program required tool list

VI. METHODS OF PRESENTATIO /INSTRUCTION

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

1. Lecture
2. Demonstration
3. Discussion
4. Laboratory

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 projects.

B. Grading

1. It is the students' responsibility to make up work when absent.
2. All assigned work must be turned in on the day due or a late grade will be given (10% deduction each late day).
3. 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 term.
4. Minimum course grade of C (70 Percent).

C. Attendance / Classroom Policies

1. The Attendance Policy, as specified in the Welding Technology Program Policies, will be followed.
2. The Classroom/Lab Policy, as specified in the Welding Technology Program will be followed.