

SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGIES & SKILLED TRADES DIVISION
WELDING TECHNOLOGY
COURSE SYLLABUS
December 10, 2025

I. CATALOG DESCRIPTION

Course Number: WELD2520
Course Title: Welder Qualification/Certification
Prerequisite(s): WELD2450
Pre/Co-requisite(s): WELD2410

Catalog Description: Student qualification/certification tests in structural and/or pipe welding in compliance with the code and/or standards of the American Welding Society, American Society of Mechanical Engineers or recognized codes and standards of industry.

Credit Hours: 1.5
Classroom Hours: 8
Lab Hours: 45
Total Contact Hours: 53

II. COURSE OBJECTIVES: *Course will:*

- A.** Introduce student to and have them proficient with ANSI/AWS D1.1 Structural Steel Welding Code welder qualification requirements.
- B.** Introduce student to and have them proficient with ASME Section IX Boiler & Pressure Vessel Code welder qualification requirements.
- C.** Utilize the SCC Certified Welder Test Facility.
- D.** Use practical lab welding, and all position plate and pipe welder qualifications.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

B. GENERAL EDUCATION LEARNING OUTCOMES:

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 / TOPICAL OUTLINE

- A.** ANSI / AWS D1.1 interpretation
- B.** ASME Section IX interpretation
- C.** AWS welding symbols and terminology

D. Shielded Metal Arc Welding on carbon steel in all positions

E. Introduction to pipe welding

V. INSTRUCTIONAL MATERIALS

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

Required Resources/Tools: Notebook
All welding related tools

VI. METHODS OF PRESENTATION / INSTRUCTION

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

1. Lecture
2. Video presentations
3. Group discussions
4. Lab discussions

VII. METHODS OF EVALUATION

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

1. Daily evaluation
2. Quizzes, written tests, practical tests and lab
3. Personal conduct, attitude and following directions
4. Safety

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. Grading

1. It is the students' responsibility to make up tests, quizzes or lab when absent.
2. A ten percent (10%) deduction will apply to all assignments for each day late.
3. The instructor reserves the right to revise assignments in accordance to the progress of the class at any time during the term.