

SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGIES AND SKILLED TRADES DIVISION
WELDING TECHNOLOGY
COURSE SYLLABUS
October 27, 2025

I. CATALOG DESCRIPTION

Course Number: WELD2330
Course Title: GTAW II
Prerequisite(s): WELD2320

Catalog Description: Welding of stainless steel and aluminum with the Gas Tungsten Arc Welding process in all positions and on various joint configurations.

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

II. COURSE OBJECTIVES: *Course will:*

- A.** Teach how to gas tungsten arc weld stainless steel in all positions and on various types of joints.
- B.** Teach how to gas tungsten arc weld aluminum in all positions and on various types of joints.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

1. Produce acceptable welds on stainless steel and aluminum in various positions and joint configurations.
2. Demonstrate proper machine setup and torch configuration for the GTAW process.
3. Demonstrate the ability to weld various joint in most positions on aluminum and stainless-steel material.
4. Understand filler metal properties as related to base metal or code requirements.
5. Understand maintenance and repairs as related to the power supply, torch and related equipment.
6. Utilize proper fitting techniques related to material properties and configurations.
7. Demonstrate lab safety per industry standards.

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.** Setup of equipment

- B. Welding of square grooves, lap joints and T-joints in the flat, horizontal and vertical positions on stainless steel
- C. Welding of a stainless-steel project involving square grooves, lap joints and T-joints
- D. Welding of square grooves, lap joints and T-joints in the flat, horizontal and vertical positions on aluminum
- E. Welding of an aluminum project involving square grooves, lap joints and T-joints

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
 Tools/supplies for the 1st, 2nd, and 3rd semesters listed on the Welding Technology required tool list

VI. METHODS OF PRESENTATION/INSTRUCTION

- A. Methods of presentation typically include a combination of the following:**
1. Lecture
 2. Video presentations
 3. Laboratory demonstrations

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 weldments.**
- 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 semester.
 4. Minimum course grade of C (70 Percent) is required.