

WELD 1110 Gas Tungsten Arc Welding COURSE SYLLABUS Summer Semester 2023 (202316)

COURSE INFORMATION

Credit Hours/Minutes: 4/5000 Class Location: Room 416

Class Meets: T, R 5:00-9:30 p.m.

CRN: 60116

INSTRUCTOR CONTACT INFORMATION

Adjunct Instructor Name: Mr. Antonio Kelley

Adjunct College Email Address: Antonio Kelley akelley@southeasterntech.edu

Vidalia Campus/Office Location: 413

Office Hours: Tuesday and Thursday from 4:45 – 5:00 p.m.

Phone: 912-538-7395

Fax Number: 912-538-3156

Instructor Name: Mr. Michael Crumpler

Email Address: Michael Crumpler mcrumpler@southeasterntech.edu

Vidalia Campus/Office Location: Room 417

Office Hours: By appointment only

Phone: 912-538-3257 Fax Number: 912-538-3156

Tutoring Hours (if applicable): See instructor to schedule an appointment

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's <u>Catalog and Handbook</u> (http://www.southeasterntech.edu/student-affairs/catalog-handbook.php).

REQUIRED TEXT

None

REQUIRED SUPPLIES & SOFTWARE

Each student should have the following: Long Sleeve Shirt or welding jacket, pair of work boots, welding helmet, gloves, safety glasses, vice grips, 4 ½" grinder, wire brush, Klines or heavy duty wire cutters. You will not be permitted to borrow from the Instructor or your fellow classmates.

Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

This course provides knowledge of theory, safety practices, inert gas, equipment, and techniques for successful gas tungsten arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making industrial standard welds. Topics include: GTAW safety and health practices, shielding gases, metal cleaning procedures, GTAW machines and set up, selection of filler rods, GTAW Weld positions, and production of GTAW beads, bead patterns, and joints.

MAJOR COURSE COMPETENCIES

- 1. GTAW Safety and Health Practices
- 2. Shielding Gases
- 3. Metal Cleaning Procedures
- 4. GTAW Machines and Set Up
- Selection of Filler Rods
- 6. GTAW Weld Positions
- 7. GTAW Beads, Bead Patterns, and Joints

PREREQUISITE(S)

All required

COURSE OUTLINE

This course outlines: Welding Positions, Types of Test, Corrective Procedures, Codes and Standards, Fillet and Groove Welds, Qualifications and Job Entry.

GENERAL EDUCATION CORE COMPETENCIES

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

- 1. The ability to utilize standard written English.
- 2. The ability to solve practical mathematical problems.
- 3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

All assignments must be completed by the specified date. Students are also responsible for policies and procedures in the STC E-Catalog.

TRADITIONAL ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may

receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an "F" in a course.

STUDENTS WITH DISABILITIES

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: <u>Emily Jarrell (ejarrell@southeasterntech.edu)</u>, <u>478-289-2259</u>, Building 1, Room 1210. Vidalia Campus: Helen Thomas (hthomas@southeasterntech.edu)</u>, <u>912-538-3126</u>, Building A, Room 165.

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please make arrangements with the appropriate campus coordinator.

Swainsboro Campus: <u>Emily Jarrell (ejarrell@southeasterntech.edu)</u>, 478-289-2259, Building 1, Room 1210. Vidalia Campus: <u>Helen Thomas (hthomas@southeasterntech.edu)</u>, 912-538-3126, Building A, Room 165.

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery MAY NOT be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawa) is assigned for the course(s) when the student completes the withdrawal form.

Important – Student-initiated withdrawals are not allowed after the 65% point. After the 65% point of the term in which the student is enrolled, the student has earned the right to a letter grade and will receive a grade for the course. Please note: Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" (Failing 0-59) being assigned.

Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial

Aid Office to determine any financial penalties that may be accessed due to the withdrawal. A grade of "W" will count in attempted hour calculations for the purpose of Financial Aid.

EXIT EXAM

None

WORK ETHICS

Work Ethics are taught in WELD 1000 Introduction to Welding Technology.

MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)

Any assignment can be made up with acceptable excuse approved by the instructor; any assignment not made up will result in the student receiving a zero.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. First Offense

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

2. Second Offense

Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

3. Third Offense

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

As set forth in the student catalog, Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) - Office of Civil Rights (OCR) Compliance Officer	Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer	
Helen Thomas, Special Needs Specialist	Lanie Jonas, Director of Human Resources	
Vidalia Campus	Vidalia Campus	
3001 East 1 st Street, Vidalia	3001 East 1 st Street, Vidalia	
Office 108 Phone: 912-538-3126	Office 138B Phone: 912-538-3230	
Email: <u>Helen Thomas</u>	Email: <u>Lanie Jonas</u>	
hthomas@southeasterntech.edu	ljonas@southeasterntech.edu	

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the <u>Southeastern Technical</u> <u>College (STC) Website</u> (<u>www.southeasterntech.edu</u>).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

GRADING POLICY

Assessment/Assignment	Percentage	
Hands On Assignments	100%	

GRADING SCALE

Letter Grade	Range
Α	90-100
В	80-89
С	70-79
D	60-69
F	0-59

WELD 1110 Gas Tungsten Arc Welding Summer Semester 2023 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
May 16	Gas Tungsten Arc Welding Set Up and Electrode Selection	First day of class, introductions, Syllabi, Use of Blackboard, Grading Rubric Set Up and Electrode Selection for Gas Tungsten Arc Welding.	Refresher of proper machine set up, electrode selection and gas selection given by Instructor.	1,2,3,4,5,6,7,A,B,C
18	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,7,A,B,C
23	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,7,A,B,C
25	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Demonstration given by instructor on how to fit up and weld a Tee Joint using multipass fillet welds, students practicing making multipass fillet welds on Tee Joints in all positions.	
30	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
June 1	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
6	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
8	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
13	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
15	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
20	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints.	1,2,3,4,5,6,7,A,B,C
22	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Demonstration given by instructor on how to fit up and weld a Corner Joint, Lap Joint, Edge Joint and a Butt Joint. Students practicing.	1,2,3,4,5,6,7,A,B,C
27	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C
29	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	
July 4	NO CLASS	HOLIDAY	NO CLASS	HOLIDAY
6	NO CLASS	HOLIDAY	NO CLASS	HOLIDAY
11	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C
13	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C
18	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C
20	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C
25	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Corner Joint, Lap Joint, Edge Joint, Butt Joint	Students practicing welding: corner, lap, edge and butt joints.	1,2,3,4,5,6,7,A,B,C

COMPETENCY AREAS:

- 1. GTAW Safety and Health Practices
- 2. Shielding Gases
- 3. Metal Cleaning Procedures
- 4. GTAW Machines and Set Up
- 5. Selection of Filler Rods
- 6. GTAW Weld Positions
- 7. Production of GTAW Beads, Bead Patterns, and Joints

GENERAL CORE EDUCATIONAL COMPETENCIES:

- A. The ability to utilize standard written English.
- **B.** The ability to solve practical mathematical problems.
- **C.** The ability to read, analyze, and interpret information.



TECHNICAL	COLLEGE	
Name:		
Process:		
Position:		
Type(s) of Weld(s):		
Criteria	Teacher Evaluation	Possible Points
Appearance (Pinholes, undercut, width, height, etc.)		25
Tie Ins (Beads tied into base metal, and previous weld)		25
Uniformity (Straight beads, same width, etc.)		25
Slag Inclusions (Trapped slag as a result of poor tie ins)		25
TOTAL	0	100
11-19 Pts. (Mostly tied in, less than half the weld has pii 20-25 Pts. (Beads are tied in, no slag, no undercut, no pi Comments:		ed slag, mostly uniform)
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