



**Gas Tungsten Arc Welding / WELD
1110
COURSE SYLLABUS
Fall Semester 2016(201712)**

Semester: Fall 2016

Course Title: Gas Tungsten Arc Welding

Course Number: WELD 1110

Credit Hours/ Minutes: 4 / 5000

Class Location: Room #6106

Class Meets: Mon. & WED 9am – 12:15 pm

CRN: 20176

Instructor: Mr. Chris Cumbee

Email Address: ccumbee@southeasterntech.edu

Day Instructor: Mr. Chris Cumbee

Office Location: Room 6106 Building 6

Office Hours of Day Instructor: M/T/W/TH 7am – 8am

Email Address: ccumbee@southeasterntech.edu

Phone: 478-289-2325

REQUIRED TEXT: None Required

REQUIRED SUPPLIES: Spiral notebook, pen, highlighter, welding helmet, clear safety glasses, welding gloves, ear plugs, chipping hammer, half round file with tang, wire brush, wire cutters, Shade 5 cutting glasses, striker, Vice grips, combination square, torpedo level, ball peen hammer, 12" Crescent Wrench, 12' tape measure and a 4 ½" angle grinder. **All students must have these items by the 2nd week of class; no exceptions.**

PRE-REQUISITES: None

CO-REQUISITES: All Required, WELD 1000 Introduction to Welding Technology

COURSE DESCRIPTION: 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 GTRW 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
5. Selection of Filler Rods
6. GTAW Weld Positions
7. Production of GTAW Beads, Bead Patterns, and Joints

COURSE OUTLINE: 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.

GENERAL EDUCATION CORE COMPETENCIES: STC 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.

All students pursuing a degree, a diploma, or a Technical Certificate of Credit with a General Education component will be required to pass the General Education Competency Exams prior to graduation.

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 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.

SPECIAL NEEDS: Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, 912-538-3126, hthomas@southeasterntech.edu, to coordinate reasonable accommodations.

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 advise me and make appropriate arrangements with Helen Thomas, (912) 538-3126, hthomas@southeasterntech.edu.

WITHDRAWAL PROCEDURE: Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (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" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

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 assessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

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

MAKEUP GUIDELINES (Tests, quizzes, homework, projects, etc...): [All assignments due by end of semester at 5:00 pm.](#)

ACADEMIC DISHONESTY POLICY: The STC Academic Dishonesty Policy states *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 *STC Catalog and Student Handbook.*

Procedure for Academic Misconduct

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

--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.

--Second Offense--

Student is given a grade of "WF" 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.

--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

second 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: Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era or citizenship status, (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

GRIEVANCE PROCEDURES: Grievance procedures can be found in the Catalog and Handbook located on STC'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 STC website at www.southeasterntech.edu.

GRADING POLICY

Welding Assignments – 100%

GRADING SCALE

- A: 90-100
- B: 80-89
- C: 70-79
- D: 60-69
- F: 0-59

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.*

**WELD 1110—Gas Tungsten Arc Welding
Fall Semester 2016 Lesson Schedule**

Date	Chapter / Lesson	Content	Assignments Tests	*Competency Area
Aug. 15	GTAW Set Up and Electrode Selection	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. GTAW Set Up and Electrode Selection	Refreshing of proper GTAW Set Up and Electrode Selection by instructor. Demonstration given of GTAW of Padded Plate; students practicing GTAW of Padded plate.	1,2,3,4,A,B
17	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A,C
22	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A,C
24	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 multi-pass fillet welds, students practicing making multi-pass fillet welds on Tee Joints in all positions.	1,2,3,4,A,C
29	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 multi-pass fillet welds, students practicing making multi-pass	1,2,3,4,A,C

			fillet welds on Tee Joints in all positions.	
31	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 multi-pass fillet welds, students practicing making multi-pass fillet welds on Tee Joints in all positions.	1,2,3,4,A,C
Sep. 5	HOLIDAY	HOLIDAY	HOLIDAY	NO CLASS
7	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,A,C
12	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,A,C
14	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,A,C
19	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,A,C
21	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,A,C
26	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,A,C
28	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,A,C
Oct 3	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,A,C
5	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,A,C
10	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,A,C
12	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,A,C
17	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,A,C
19	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,A,C
24	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,A,C
26	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,A,C
31	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,A,C
Nov. 2	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,A,C
7	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,A,C
9	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,A,C

14	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,A,C
16	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,A,C
21	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,A,C
23	HOLIDAY	HOLIDAY	HOLIDAY	NO CLASS
28	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,A,C
30	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,A,C
Dec. 1	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,A,C

Competency Areas:

1. GTAW Safety Practices and Health Practices
2. Selection and Applications of Electrodes for GTAW
3. GTAW Joints
4. GTAW to Specification

General Education 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.