



**WELD 1090 GMAW
COURSE SYLLABUS
Spring Semester 2017(201714)**

Semester: Spring
Course Title: Gas Metal Arc Welding
Course Number: WELD 1090
Credit Hours/ Minutes: 4/5000
Class Location: Room # 6106
Class Meets: M/T/W/R 5:00 – 7:00 pm
CRN: 40209

Instructor: Chris Cumbee
Office Hours: M/T/W/R 7 – 9 am
Office Location: Building 6 Room 6106
Email Address: ccumbee@southeasterntech.edu
Phone: 478-289-2325

REQUIRED TEXT: None

REQUIRED SUPPLIES & SOFTWARE: : Each student should have the following: Long Sleeve Shirt, pair of work boots, welding helmet, gloves, safety glasses and wire cutters. Please do not burn off wire on the tables, buy a pair of wire cutters.

COURSE DESCRIPTION WELD 1090 – Gas Metal Arc Welding provides knowledge of theory, safety practices, equipment and techniques required for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds.

MAJOR COURSE COMPETENCIES: Topics include: GMAW safety and health practices; GMAW theory; machines, and set up: transfer modes; wire selection; shielded gas selection; and GMAW joints in all positions.

PREREQUISITE(S): None

COURSE OUTLINE:

1. GMAW Safety Practices and Health Practices
2. GMAW Theory, Machines and Set Up
3. Transfer Modes
4. Wire Selection
5. Shielded Gas Selection
6. GMAW Joints in All Positions

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.

STUDENT REQUIREMENTS: Tests and assignments must be completed on the specified date. Students are also responsible for policies and procedures in student catalog/handbook.

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.

STATEMENT OF NON-DISCRIMINATION: The Technical College System of Georgia and its

constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member 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).

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

ADA/Section 504 - Equity- Title IX (Students) - OCR Compliance Officer	Title VI - Title IX (Employees) - EEOC Officer
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 st Street, Vidalia Office 108 Phone: 912-538-3126 hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138B Phone: 912-538-3147 bwilcox@southeasterntech.edu

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

Lab 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 1090 Gas Metal Arc Welding
Spring SEMESTER 2017 LESSON PLAN**

Date	Chap / Less	Content	Assignments & Tests Due	Comp Area
Jan. 9	GMAW	First day of class/Class Introduction— Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. GMAW Set Up and Electrode Selection	Refreshing of proper GMAW Set Up and Electrode Selection by instructor. Demonstration given of GMAW of Padded Plate; students practicing GMAW of Padded plate.	A,B ,1,2,3,4,5 ,6
10	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
11	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
12	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
16	Holiday	Holiday	Holiday	Holiday
17	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
18	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
19	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,A, C
23	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.	1,2,3,4,A, C
24	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
25	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
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,A, C
31	Corner Joint	Corner Joint	Demonstration given by instructor on how to fit up and weld a corner joint using multi-pass fillet welds. Students	1,2,3,4,A, C

			practicing welding corner joints using multi-pass fillet welds.	
Feb. 1	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,C
2	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,C
6	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,C
7	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,C
8	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,C
9	Lap Joint	Lap Joint	Demonstration given by instructor on how to fit up and weld a lap joint using multi-pass fillet welds. Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
13	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
14	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
15	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
16	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
20	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
21	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
22	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
23	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
27	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,C
28	Square Butt Joint	Square Butt Joint	Demonstration given by instructor on how to properly weld a square butt joint. Students practicing welding square butt joints.	1,2,3,4,A,C
Mar. 1	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
2	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
6	Square Butt	Square Butt Joint	Students practicing welding square butt	1,2,3,4,A,C

	Joint		joints.	C
7	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
8	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
9	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
13	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
14	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
15	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,C
16	Edge Joint	Edge Joints	Demonstration given by instructor on how to properly weld an edge joint. Students practicing welding edge joints.	1,2,3,4,A,C
20	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
21	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
22	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
23	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
27	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
28	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
29	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
30	Weld All Around	Weld All Around	Demonstration given by instructor as to how to successfully fit up and weld a weld all around using ½ multi-pass fillet welds. Students practicing weld all around.	1,2,3,4,A,C
Apr. 3	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
4	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
5	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
6	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
10	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
11	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
12	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
13	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
17	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A,C

18	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A, C
19	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A, C
20	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A, C
24	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A, C

Competency Areas:

1. GMAW Safety Practices and Health Practices
2. GMAW Theory, Machines and Set Up
3. Transfer Modes
4. Wire Selection
5. Shielded Gas Selection
6. GMAW Joints in All Positions

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.