



WELD 1090 GMAW COURSE SYLLABUS Spring Semester 2016

Semester: Spring
Course Title: Gas Metal Arc Welding
Course Number: WELD 1090
Credit Hours/ Minutes: 4 / 5000
Class Location: Room # 6106
Class Meets: M/W 5:00 – 8:00 pm
CRN: 40205

Instructor: Chris Cumbee
Office Hours: M/T/W/R 7:00 – 9:00 am
Office Location: Building 6 Room 6107
Email Address: ccumbee@southeasterntech.edu
Phone: 478-289-2325

REQUIRED TEXT: None

REQUIRED SUPPLIES & SOFTWARE: 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 1/2" angle grinder. All students must have these items by the 2nd day of class; no exceptions.

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.

STUDENT REQUIREMENTS: Tests and assignments must be completed on the specified date. Students are also responsible for policies and procedures in the STC E-Catalog.

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 Jan Brantley, Room 1208 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, 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 the Special Needs Office. Swainsboro Campus: Jan Brantley, Room 1208, (478) 289-2274 -- Vidalia Campus: Helen Thomas, Room 108, (912) 538-3126.

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 welding assignments are due on dates listed on lesson plan; failure to turn in welding assignments on specified dates will result in a zero.

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.*

**Gas Metal Arc Welding WELD 1090
Spring SEMESTER 2016 LESSON PLAN**

Date	Chap / Less	Content	Assignments & Tests Due	Comp Area
Jan. 11	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.	1,2,3,4,5 ,6,A,B,C
13	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
18	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
20	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
25	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
27	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
Feb. 1	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5 ,6,A,B,C
3	Surfacin g, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate. Padded plate due for grading	1,2,3,4,5 ,6,A,B,C
8	Tee Joints, Multi-	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	1,2,3,4,5 ,6,A,B,C

	Pass Fillet Welds		practicing making multi-pass fillet welds on Tee Joints.	
10	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,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,A,B,C
17	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,A,B,C
22	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints. Tee joint due for grading	1,2,3,4,5,6,A,B,C
24	Corner Joint	Corner Joint	Demonstration given by instructor on how to fit up and weld a corner joint using multi-pass fillet welds. Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
29	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
Mar. 2	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds. Corner Joint due for grading	1,2,3,4,5,6,A,B,C
7	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.	1,2,3,4,5,6,A,B,C

9	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5 ,6,A,B,C
14	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds. Lap joint due for grading	1,2,3,4,5 ,6,A,B,C
16	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.	1,2,3,4,5 ,6,A,B,C
21	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints. Square butt joint due for grading	1,2,3,4,5 ,6,A,B,C
23	Edge Joint	Edge Joints	Demonstration given by instructor on how to properly weld an edge joint. Students practicing welding edge joints.	1,2,3,4,5 ,6,A,B,C
28		Spring Break No Class!	Spring Break No Class!	
30		Spring Break No Class!	Spring Break No Class!	
Apr. 4	Edge Joint	Edge Joints	Students practicing welding edge joints. Edge joint due for grading	1,2,3,4,5 ,6,A,B,C
6	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.	1,2,3,4,5 ,6,A,B,C
11	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5 ,6,A,B,C
13	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5 ,6,A,B,C
18	Weld All Around	Weld All Around	Students practicing weld all around. Weld all around due for grading	1,2,3,4,5 ,6,A,B,C
20	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5 ,6,A,B,C
25	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5 ,6A,B,C
27	Beveled	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5

	Plate for Welder Certification		Bevel plates due for certification and grading.	,6,A,B,C
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*** Competency Areas: (will vary for each course/taken from state standards)**

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.

Note—the last column, Comp Area, should include a competency area number and a general core competency letter.