



WELD 1090 Gas Metal Arc Welding COURSE SYLLABUS Spring Semester 2020

COURSE INFORMATION

Credit Hours/Minutes: 4/4500
Class Location: Metter High School
Class Meets: M-W 1:35 pm – 3:10 pm
Course Reference Number (CRN): 40310

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Mr. Jason McDonald
Office Location: EDC/Room 105
Office Hours: By appointment only
Email Address: [Jason McDonald jmcdonald@southeasterntech.edu](mailto:jmcdonald@southeasterntech.edu)
Phone: 912-538-3180
Fax Number: 912-538-3156
Tutoring Hours (if applicable):

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 [Catalog and Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

REQUIRED TEXT

None

REQUIRED SUPPLIES & SOFTWARE

Long sleeve shirt or welding jacket, welding helmet, clear safety glasses, welding gloves, ear plugs, wire brush, wire cutters, Vice grips, 12" Crescent Wrench, 12' tape measure and a 4 ½" angle grinder. 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

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. Topics include: Gas Metal Arc Welding Safety and Health Practices; Gas Metal Arc Welding Theory; Machines, and Set Up: Transfer Modes; Wire Selection; Shielded Gas Selection; and Gas Metal Arc Welding Joints

MAJOR COURSE COMPETENCIES

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

PREREQUISITE(S)

All Required, WELD 1000 Introduction to Welding Technology

COURSE OUTLINE

Gas Metal Arc Welding Safety and Health Practices; Gas Metal Arc Welding Theory; Machines, and Set Up; Transfer Modes; Wire Selection; Shielded Gas Selection; and Gas Metal Arc Welding 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.

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: [Macy Gay \(mgay@southeasterntech.edu\)](mailto:mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1208
Vidalia Campus: [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 108

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: [Macy Gay \(mgay@southeasterntech.edu\)](mailto:mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1208
Vidalia Campus: [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 108

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 any 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" (Withdrawn) 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 assessed due to the withdrawal. A grade of "W" will count in attempted hour calculations for the purpose of Financial Aid.

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

Makeup test will be given on the following class meeting date with an acceptable excuse approved by the instructor; any test not made up will result in the student receiving 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:

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" 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

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:

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

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](#).

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

WELD 1090 Gas Metal Arc Welding Spring Semester 2020 Lesson Plan

Key: Jan – January, Feb – February, Mar – March, Apr – April

Date	Chapter	Content	Assignments & Tests Due Dates	Competency
Jan 7	Gas Metal Arc Welding Set Up and Electrode Selection	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. Gas Metal Arc Welding Set Up and Electrode Selection	Refreshing of proper Gas Metal Arc Welding Set Up and Electrode Selection by instructor. Demonstration given of Gas Metal Arc Welding of Padded Plate; students practicing Gas Metal Arc Welding of Padded plate.	1,2,3,4,5,6,A,B,C
8	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
13	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
14	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
15	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
16	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.	1,2,3,4,5,6,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
20	No Class	Holiday	Holiday	No Class
21	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi- pass fillet welds on Tee Joints.	1,2,3,4,5,6,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.	1,2,3,4,5,6,A,B,C
27	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
28	Corner Joint	Corner Joint	Demonstration given by instructor on how to fit up and weld a corner	1,2,3,4,5,6,A,B,C

Date	Chapter	Content	Assignments & Tests Due Dates	Competency
			joint using multi-pass fillet welds. Students practicing welding corner joints using multi-pass fillet welds.	
29	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
Feb 3	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
4	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
5	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
10	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
11	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
12	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
17	No Class	Holiday	Holiday	No Class
18	No Class	Holiday	Holiday	No Class
19	No Class	Holiday	Holiday	No Class
24	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
25	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
26	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
Mar 2	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
3	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
4	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
9	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
10	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
11	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C

Date	Chapter	Content	Assignments & Tests Due Dates	Competency
16	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
17	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.	1,2,3,4,5,6,A,B,C
23	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
24	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
25	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
30	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
31	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
Apr 1	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
6	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
7	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
8	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
13	NO CLASS	SPRING BREAK	SPRING BREAK	NO CLASS
14	NO CLASS	SPRING BREAK	SPRING BREAK	NO CLASS
15	NO CLASS	SPRING BREAK	SPRING BREAK	NO CLASS
20	Corner Joint, Vertical UP, (3F) Weave	Corner Joint, Vertical UP, (3F) Weave	Demonstration given by instructor on how to fit up and weld a corner joint using weave welds. Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C
21	Corner Joint, Vertical UP, (3F) Weave	Corner Joint, Vertical UP, (3F) Weave	Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C
22	Corner Joint, Vertical UP, (3F) Weave	Corner Joint, Vertical UP, (3F) Weave	Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C
27	Corner Joint, Vertical UP,	Corner Joint, Vertical UP, (3F)	Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C

Date	Chapter	Content	Assignments & Tests Due Dates	Competency
	(3F) Weave	Weave		
28	Corner Joint, Vertical UP, (3F) Weave	Corner Joint, Vertical UP, (3F) Weave	Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C
29	Corner Joint, Vertical UP, (3F) Weave	Corner Joint, Vertical UP, (3F) Weave	Students practicing welding corner joints using weave welds.	1,2,3,4,5,6,A,B,C
May 4	Corner Joint, Downhill	Corner Joint, Downhill	Demonstration given by instructor on how to fit up and weld a corner joint downhill. Students practicing welding corner joints downhill.	1,2,3,4,5,6,A,B,C
5	Corner Joint, Downhill	Corner Joint, Downhill	Students practicing welding corner joints downhill.	1,2,3,4,5,6,A,B,C
6	Corner Joint, Downhill	Corner Joint, Downhill	Students practicing welding corner joints downhill.	1,2,3,4,5,6,A,B,C
11	Corner Joint, Downhill	Corner Joint, Downhill	Students practicing welding corner joints downhill.	1,2,3,4,5,6,A,B,C
12	Corner Joint, Downhill	Corner Joint, Downhill	Students practicing welding corner joints downhill.	1,2,3,4,5,6,A,B,C
13	Beveled Plate	Beveled Plate	Demonstration given by instructor on how to successfully weld a beveled plate. Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
18	Beveled Plate	Beveled Plate	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
19	Beveled Plate	Beveled Plate	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
20	Last Day	Last Day	Last Day	Last Day

Competency Areas:

1. Gas Metal Arc Welding Safety Practices and Health Practices
2. Gas Metal Arc Welding Theory, Machines and Set Up
3. Transfer Modes
4. Wire Selection
5. Shielded Gas Selection
6. Gas Metal Arc Welding 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.