



WELD 1090 Gas Metal Arc Welding
COURSE SYLLABUS
Spring Semester 2018

COURSE INFORMATION

Credit Hours/Minutes: 4 Credit hours / 4500 Minutes

Class Location: Room 6109

Class Meets: Monday through Thursday from 4:45 p.m. until 6:00 p.m.

Course Reference Number (CRN): 40184

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Chris Cumbee

Office Location: Building 6 / Room 6106

Office Hours: Monday through Thursday 7:00 a.m. until 8:00 a.m.

Email Address: [Chris Cumbee \(ccumbee@southeasterntech.edu\)](mailto:ccumbee@southeasterntech.edu)

Phone: 478-289-2325

Tutoring Hours (if applicable): Case by case basis.

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.

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; shielding 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. Shielding Gas Selection
6. Gas Metal Arc Welding Joints in All Positions

PREREQUISITE(S)

Program admission

COURSE OUTLINE

Gas Metal Arc Welding Safety and Health Practices; Gas Metal Arc Welding Theory; Machines, and Set Up: Transfer Modes; Wire Selection; Shielding Gas Selection; and Gas Metal Arc Welding Joints in All Positions.

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

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

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 \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 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 [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 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" (Withdrawn) 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 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.

WORK ETHICS

The Technical College System of Georgia instructs and evaluates students on work ethics in all programs of study. Ten work ethics traits have been identified and defined as essential for student success: appearance, attendance, attitude, character, communication, cooperation, organizational skills, productivity, respect, and teamwork. Students will be required to take a work ethics exam as marked in the lesson plan. A grade of 70 or better is required to complete the work ethics requirements for this class.

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 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

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:

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 Vidalia Campus 3001 East 1 st Street, Vidalia Office 108 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138B Phone: 912-538-3147 Email: Blythe Wilcox bwilcox@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 [Southeastern Technical College \(STC\) Website \(www.southeasterntech.edu\)](http://www.southeasterntech.edu).

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
Weldments	% 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 2018 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
1/8/2018	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
1/9/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
1/10/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
1/11/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
1/15/2018	HOLIDAY	NO CLASS	NO CLASS	HOLIDAY
1/16/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
1/17/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate.	1,2,3,4,5,6,A,B,C
1/18/2018	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate. Padded plates due for grade.	1,2,3,4,5,6,A,B,C
1/22/2018	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

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
1/23/2018	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
1/24/2018	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
1/25/2018	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
1/29/2018	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
1/30/2018	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
1/31/2018	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
2/1/2018	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multi-pass fillet welds on Tee Joints. Fillet welds due for grade.	1,2,3,4,5,6,A,B,C
2/5/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/6/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/7/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/8/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
2/12/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/13/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/14/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/15/2018	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds. Corner joint due for grade.	1,2,3,4,5,6,A,B,C
2/19/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/20/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/21/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/22/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/26/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/27/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C
2/28/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,5,6,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
3/1/2018	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds. Lap Joint due for grade.	1,2,3,4,5,6,A,B,C
3/5/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/6/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/7/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/8/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/12/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/13/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/14/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,5,6,A,B,C
3/15/2018	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints. Square butt joint due for grade.	1,2,3,4,5,6,A,B,C
3/19/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/20/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/21/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/22/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/26/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/27/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C
3/28/2018	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,5,6,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
3/29/2018	Edge Joint	Edge Joints	Students practicing welding edge joints. Edge Weld due for grade.	1,2,3,4,5,6,A,B,C
4/2/2018	Spring Break	Spring Break	Spring Break	Spring Break
4/3/2018	Spring Break	Spring Break	Spring Break	Spring Break
4/4/2018	Spring Break	Spring Break	Spring Break	Spring Break
4/5/2018	Spring Break	Spring Break	Spring Break	Spring Break
4/9/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/10/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/11/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/12/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/16/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/17/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/18/2018	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,5,6,A,B,C
4/19/2018	Weld All Around	Weld All Around	Students practicing weld all around. Weld all around due for grade.	1,2,3,4,5,6,A,B,C
4/23/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
4/24/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
4/25/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
4/26/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C
4/30/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,5,6,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
5/1/2018	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate. Bevel plate test due for grade.	1,2,3,4,5,6,A,B,C

COMPETENCY AREAS:

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. Shielding 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.