



WELD 1153 Flux Cored Arc Welding COURSE SYLLABUS Summer Semester 2021

COURSE INFORMATION

Credit Hours/Minutes: 4 Credit Hours / 4500 Minutes

Campus/Class Location: Swainsboro Campus /Building 6 Room 6107

Class Meets: M/W 1:20 pm – 5:30 pm

Course Reference Number (CRN): 60163

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Chris Cumbee

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

Campus/Office Location: Swainsboro Campus / Building 6 Room 6106

Office Hours: Monday through Thursday from 7:00 until 8:00 am

Phone: 478-289-2325

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>).

REQUIRED SUPPLIES & SOFTWARE

Spiral notebook, pen, highlighter, welding helmet, welding jacket, 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.

Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

Flux Cored 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

1. FLUX CORED ARC WELDING safety and health practices
2. Fundamental FLUX CORED ARC WELDING Theory
3. Basic Electrical Principles

4. FLUX CORED ARC WELDING Machines and Set Up
5. Electrode Identification and Selection
6. Materials Selection and Preparation
7. Production of Beads and Joints in All Position

PREREQUISITE(S)

None

COURSE OUTLINE

FLUX CORED ARC WELDING Safety and Health practices, Selection and Applications of Electrodes for FLUX CORED ARC WELDING, FLUX CORED ARC WELDING Joints, and FLUX CORED ARC WELDING Specification.

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 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" (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, 478-289-2274, Building 1, Room 1208

Vidalia Campus: Helen Thomas 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.

Vidalia Campus: Helen Thomas 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 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.)

All welding assignments are due on dates specified on syllabus.

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	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138B Phone: 912-538-3230 Email: Lanie Jonas ljonas@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).

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
Lab Assignments	100%

GRADING SCALE

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

Course Number and Name

Summer Semester 2021 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 1 05/17/2021 and 05/19/2021	FCAW Flux Cored Arc Welding	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. FCAW Set Up and Electrode Selection Surfacing, Padded Plate	Review of proper FCAW Set Up and Electrode Selection by instructor. Demonstration given of FCAW of Padded Plate; students practicing FCAW of Padded plate. Students practicing welding a padded plate.	1,2,3,4,5,6,7,A,B,C
Week 2 05/24/2021 and 05/26/2021	FCAW	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.	1,2,3,4,5,6,7,A,B,C
Week 3 05/31/2021 and 06/02/2021	FCAW	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.	1,2,3,4,5,6,7,A,B,C
Week 4 06/07/2021 and 06/09/2021	FCAW	Edge Joint	Demonstration given by instructor on how to properly weld an edge joint. Students practicing welding edge joints.	1,2,3,4,5,6,7,A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 5 06/14/2021 and 06/16/2021	FCAW	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.	1,2,3,4,5,6,7,A,B,C
Week 6 06/21/2021 and 06/23/2021	FCAW	Intermittent Fillet Weld	Demonstration given by instructor on how to fit up, lay out and weld an Intermittent Fillet Weld. Students practicing welding Intermittent fillet welds.	1,2,3,4,5,6,7, A, B, C
Week 7 06/28/2021 and 06/30/2021	FCAW	Staggered Intermittent Fillet Weld	Demonstration given by instructor on how to fit up, lay out and weld a Staggered Intermittent fillet welds. Students practicing welding Staggered Intermittent fillet welds.	1,2,3,4,5,6,7, A, B, C
WEEK 8 07/05/2021 and 07/07/2021	SUMMER BREAK NO CLASS	SUMMER BREAK NO CLASS	SUMMER BREAK NO CLASS	SUMMER BREAK NO CLASS
WEEK 9 07/12/2021 and 07/14/2021	FCAW	Weld All Around Project	Demonstration given by instructor on how to fit up and weld the Weld All Around project. Students fit up, lay out, and weld the Weld All Around project to code standards.	1,2,3,4,5,6,7, A, B, C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 10 07/19/2021 and 07/21/2021	FCAW	Butt Joint	Demonstration given by instructor on how to properly weld a square butt joint. Students practicing welding square butt joints.	1,2,3,4,5,6,7, A, B, C
WEEK 11 07/26/2021 SEMESTER ENDS	FCAW	3G Vertical Weld Test	Students will be conduction industry standard weld test. All Welding Assignments due 07/26/2021	1,2,3,4,5,6,7, A, B, C

COMPETENCY AREAS: (WILL VARY FOR EACH COURSE/TAKEN FROM STATE STANDARDS)

1. FLUX CORED ARC WELDING safety and health practices
2. Fundamental FLUX CORED ARC WELDING Theory
3. Basic Electrical Principles
4. FLUX CORED ARC WELDING Machines and Set Up
5. Electrode Identification and Selection
6. Materials Selection and Preparation
7. Production of Beads and Joints in All Position

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.