



## **WELD 1150 Advanced Gas Tungsten Arc Welding COURSE SYLLABUS Spring Semester 2018**

### **COURSE INFORMATION**

Credit Hours/Minutes: 3 Credit Hours / 3750 Minutes  
Class Location: Building 6, Room 6106  
Class Meets: Monday through Thursday 3:35 pm to 4:40 pm  
Course Reference Number (CRN): 40183

### **INSTRUCTOR CONTACT INFORMATION**

Instructor Name: Chris Cumbee  
Office Location: Building 6, Room 6107  
Office Hours: Monday through Thursday 7:00 am to 8:00 am  
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**

Each student should have the following: Long Sleeve Shirt or welding jacket, pair of work boots, welding helmet, gloves, clear safety glasses, 4 ½" grinder, vice grips, wire brush, Kline or heavy duty wire cutters, 16 oz. ball peen hammer, large flat head screw driver. You will not be permitted to borrow from the Instructor or your fellow classmates.

### **COURSE DESCRIPTION**

This course provides knowledge of theory, safety practices, inert gas, equipment, and techniques for successful advanced gas tungsten arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making advanced industrial standard welds. Topics include: Gas Tungsten Arc Welding safety and health practices, shielding gases, metal cleaning procedures, Gas Tungsten Arc Welding machines and set up, selection of filler rods, Gas Tungsten Arc Welding Weld positions, and advanced production of Gas Tungsten Arc Welding beads, bead patterns, and joints.

### **MAJOR COURSE COMPETENCIES**

1. Gas Tungsten Arc Welding Safety and Health Practices
2. Shielding Gases
3. Metal Cleaning Procedures
4. Gas Tungsten Arc Welding Machines and Set Up
5. Selection of Filler Rods
6. Gas Tungsten Arc Welding Weld Positions

## 7. Advanced Production of Gas Tungsten Arc Welding Beads, Bead Patterns, and Joints

### **PREREQUISITE(S)**

WELD 1000 Introduction to Welding Technology and WELD 1110 Gas Tungsten Arc Welding.

### **COURSE OUTLINE**

Gas Tungsten Arc Welding Safety and Health practices, Shielding Gases, Metal Cleaning procedures, Gas Tungsten Arc Welding machines and set up, Selection of Filler Rods, Gas Tungsten Arc Welding Weld positions, and Advanced Production of Gas Tungsten Arc Welding Beads, Bead Patterns, and Joints.

### **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 Southeastern Technical College 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.

## **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 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" (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:

<b>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</b>	<b>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 108 Phone: 912-538-3126 Email: <a href="mailto:hthomas@southeasterntech.edu">Helen Thomas</a> <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 Email: <a href="mailto:bwilcox@southeasterntech.edu">Blythe Wilcox</a> <a href="mailto:bwilcox@southeasterntech.edu">bwilcox@southeasterntech.edu</a>

## 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

<b>Letter Grade</b>	<b>Range</b>
D	60-69
F	0-59

## WELD 1150 Advanced Gas Tungsten Arc Welding Spring Semester 2018 Lesson Plan

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
1/8/2018	GTAW Set Up and Electrode Selection	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. GTAW Set Up and Electrode Selection	Refreshing of proper GTAW Set Up and Electrode Selection by instructor. Demonstration given of GTAW of 1G Pipe; students practicing GTAW of 1G Pipe.	1,2,3,4,5,6,7,A,B,C
1/9/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/10/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/11/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/15/2018	Holiday	Holiday	Holiday	Holiday
1/16/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/17/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/18/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/22/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/23/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
1/24/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/25/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/29/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/30/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
1/31/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	1,2,3,4,5,6,7,A,B,C
2/1/2018	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe	Students practicing welding 1G Pipe. 1G pipe assignment due for grade.	1,2,3,4,5,6,7,A,B,C
2/5/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/6/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/7/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/8/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/12/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
2/13/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/14/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/15/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/19/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/20/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/21/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/22/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/26/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/27/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
2/28/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	1,2,3,4,5,6,7,A,B,C
3/1/2018	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe	Students practicing welding 2G Pipe. 2G pipe weldment due for grade.	1,2,3,4,5,6,7,A,B,C



<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
3/5/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/6/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/7/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/8/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/12/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/13/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/14/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/15/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/19/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/20/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/21/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
3/22/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/26/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/27/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/28/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	1,2,3,4,5,6,7,A,B,C
3/29/2018	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe	Students practicing welding 5G Pipe. 5G pipe weldment due for grade.	1,2,3,4,5,6,7,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	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/10/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/11/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/12/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/16/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
4/17/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/18/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/19/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/23/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/24/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/25/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/26/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
4/30/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	1,2,3,4,5,6,7,A,B,C
5/1/2018	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe	Students practicing welding 6G Pipe. 6G pipe weldment due for grade	1,2,3,4,5,6,7,A,B,C

**COMPETENCY AREAS:**

1. Gas Tungsten Arc Welding Safety and Health Practices
2. Shielding Gases
3. Metal Cleaning Procedures
4. Gas Tungsten Arc Welding Machines and Set Up
5. Selection of Filler Rods
6. Gas Tungsten Arc Welding Weld Positions
7. Advanced Production of Gas Tungsten Arc Welding Beads, Bead Patterns, and Joints

**GENERAL CORE EDUCATIONAL COMPETENCIES:**

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.