



**WELD 1000 Intro to Welding Technology  
COURSE SYLLABUS  
Spring Semester 2018**

**COURSE INFORMATION**

Credit Hours/Minutes: 4/4500

Class Location: Swainsboro Campus Building 6, Room 6109

Class Meets: MTWR 10:10 – 12:15 a.m.

Course Reference Number (CRN): 60234

**Instructor Contact Information**

Instructor Name:

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 7:00 a.m. until 8:00 a.m.

Phone: (478) 289-2325

**SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND STUDENT HANDBOOK**

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Student Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

**REQUIRED TEXT**

Welding Principles and Applications 8th Edition by Larry Jeffus

**REQUIRED SUPPLIES & SOFTWARE**

Each student should have the following: Spiral notebook, pen, pencil, highlighter, long sleeve shirt or welding jacket, pair of work boots, welding helmet, gloves, safety glasses, vice grips, 4 ½" grinder, wire brush, chipping hammer and wire cutters. You will not be permitted to borrow from the Instructor or your fellow classmates.

**COURSE DESCRIPTION**

This course provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards.

**MAJOR COURSE COMPETENCIES**

1. Industrial safety and health practices
2. Hand tool and power machine use
3. Measurement
4. Laboratory operating procedures
5. Welding career potentials
6. Introduction to welding codes and standards.

## **PREREQUISITE(S)**

None

## **COURSE OUTLINE**

Industrial Safety and Health Practices; Hand Tool and Power Machine use; Measurement; Laboratory Operating procedures; Welding Career potentials; and Introduction to Welding Codes and Standards.

## **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.

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

## **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 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.)**

Statement will vary per program, course, or instructor. Information should be included pertaining to such items as tests, quizzes, homework, etc.

## **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>	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 Email: <a href="mailto:ljonas@southeasterntech.edu">Lanie Jonas</a> <a href="mailto:ljonas@southeasterntech.edu">ljonas@southeasterntech.edu</a>

## 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
Written Tests	95%
Work Ethics	5%

## GRADING SCALE

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

## WELD 1000 Intro to Welding Technology 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>
5/15/2018	Introduction to Welding Technology Power Point	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour Welding acronyms and terminology	Discuss and define welding acronyms:	1,2,A,B,C
5/16/2018	Chapter 1 Intro. To Welding	Welding defined, Uses of Welding, Welding Processes, Occupations, Careers	Quiz on Welding Acronyms.	1,4,6A,B,C
5/17/2018	Chapter 1 Intro. To Welding	Welding defined, Uses of Welding, Welding Processes, Occupations, Careers	Lecture	1,4,6A,B,C
5/21/2018	Chapter 2 Safety	Welding Safety: Burns, MSDS, Work Clothing, Fire Protection, Storing and Handling Gas Cylinders, Welding Equipment.	Instructor will show students the locations of the First Aid Kits, Fire Extinguishers, Welding Gases	1,2,4,5A,B,C
5/22/2018	Chapter 2 Safety	Welding Safety: Burns, MSDS, Work Clothing, Fire Protection, Storing and Handling Gas Cylinders, Welding Equipment.	Instructor will show students the locations of the First Aid Kits, Fire Extinguishers, Welding Gases	1,2,4,5A,B,C
5/23/2018	Chapter 2 Safety	Welding Safety: Burns, MSDS, Work Clothing, Fire Protection, Storing and Handling Gas Cylinders, Welding Equipment.	Instructor will show students the locations of the First Aid Kits, Fire Extinguishers, Welding Gases	1,2,4,5A,B,C
5/24/2018	Chapter 3 SMAW	Shielded Metal Arc Welding Equipment, Safety, Operation and Set Up, Duty Cycle, Welding Cables, Electrode Holders	Demonstration of SMAW given by instructor. Test on Chapters 1, 2	1,2,4,5,8,A,B,C
5/28/2018	Holiday	Holiday	Holiday	Holiday

<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
5/29/2018	Chapter 4 SMAW of Plate	SMAW of Plate, Current Settings, Electrode Size, Arc Length, Stringer Beads, Electrode Manipulation, Butt, Tee, Corner, Lap and Edge Joints.	Students in lab practicing SMAW welding techniques	1,2,4,5,8,A,B,C
5/30/2018	Chapter 5 SMAW of Pipe	SMAW of Pipe, Preparation and Fit Up, 1G, 2G, 5G and 6G welding positions.	Demonstration will be given by instructor on SMAW of pipe.	1,2,4,5,A,B,C
5/31/2018	Chapter 5 SMAW of Pipe	SMAW of Pipe, Preparation and Fit Up, 1G, 2G, 5G and 6G welding positions.	Demonstration will be given by instructor on SMAW of pipe. Test on Chapters 3, 4.	1,2,4,5,A,B,C
6/4/2018	Chapter 7 Flame Cutting	Flame Cutting, Metals, Eye Protection, Oxy-fuel Cutting, Set Up, Hand Cutting, Layout	Demonstration will be given by instructor on OFC and brazing. Students will practice OFC set up and hand cutting techniques.	1,2,4,5,8,A,B,C
6/5/2018	Chapter 7 Flame Cutting	Flame Cutting, Metals, Eye Protection, Oxy-fuel Cutting, Set Up, Hand Cutting, Layout	Students will practice OFC set up and hand cutting techniques.	1,2,4,5,8,A,B,C
6/6/2018	Chapter 7 Flame Cutting	Oxy-fuel Cutting – Pipe Cutting, Track Torch	Demonstration given by instructor using an Oxy-fuel Pipe Beveller and Track Torch.	1,2,4,5,A,B,C
6/7/2018	Chapter 7 Flame Cutting	Oxy-fuel Cutting – Pipe Cutting, Track Torch	Demonstration given by instructor using an Oxy-fuel Pipe Beveller and Track Torch.	1,2,4,5,A,B,C
6/11/2018	Chapter 10 Gas Metal Arc Welding	Gas Metal Arc Welding Equipment, Set Up and Operation, Metal Transfer, Filler Metal Specifications, Deposition Rates	Demonstration will be given by instructor using the GMAW process.	1,2,4,5,8,A,B,C,D
6/12/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,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>
6/13/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,A,B,C
6/14/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,A,B,C
6/18/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,A,B,C
6/19/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,A,B,C
6/20/2018	Chapter 11 Gas Metal Arc Welding	GMAW, Flow Rates, Electrode Extension, Gun Angle, Shielding Gas, Modes of Transfer	Students will be in lab practicing GMAW.	1,2,4,5,A,B,C
6/21/2018	Chapters 12, 13 FCAW	Fillet Welds, Groove Welds	Demonstration using the FCAW process to be given by instructor, students practicing FCAW.	1,2,4,5,8,A,B,C
6/25/2018	Chapters 12, 13 FCAW	Fillet Welds, Groove Welds	Demonstration using the FCAW process to be given by instructor, students practicing FCAW.	1,2,4,5,8,A,B,C
6/26/2018	Chapters 12, 13 FCAW	Fillet Welds, Groove Welds	Demonstration using the FCAW process to be given by instructor, students practicing FCAW.	1,2,4,5,8,A,B,C
6/27/2018	Chapters 12, 13 FCAW	Fillet Welds, Groove Welds	Demonstration using the FCAW process to be given by instructor, students practicing FCAW.	1,2,4,5,8,A,B,C
6/28/2018	Chapters 16, 17, 18 Gas Tungsten Arc Welding	GTAW Equipment, Operation and Set Up, Tungsten, Shielding Gases, Tungsten Shaping, Remote Controls	Demonstration using the GTAW process to be given by instructor, students practicing GTAW.	1,2,4,5,8,A,B,C
7/2/2018	Student Break	No Class	No Class	No Class
7/3/2018	Student Break	No Class	No Class	No Class
7/4/2018	Student Break	No Class	No Class	No Class



<b>Date/Week</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
7/5/2018	Student Break	No Class	No Class	No Class
7/9/2018	Chapter 19 Gas Tungsten Arc Welding of Pipe	Gas Tungsten Arc Welding of Pipe, Torch Angle, Filler Rod Manipulation, Gas Flow, Tungsten Contamination	Demonstration using the GTAW process to be given by instructor, students practicing GTAW.	1,2,3,4,5,8,A,B,C
7/10/2018	Chapter 19 Gas Tungsten Arc Welding of Pipe	Gas Tungsten Arc Welding of Pipe, Torch Angle, Filler Rod Manipulation, Gas Flow, Tungsten Contamination	Demonstration using the GTAW process to be given by instructor, students practicing GTAW.	1,2,3,4,5,8,A,B,C
7/11/2018	Chapter 19 Gas Tungsten Arc Welding of Pipe	Gas Tungsten Arc Welding of Pipe, Torch Angle, Filler Rod Manipulation, Gas Flow, Tungsten Contamination	Demonstration using the GTAW process to be given by instructor, students practicing GTAW.	1,2,3,4,5,8,A,B,C
7/12/2018	Chapter 20 Welding Cost, Codes, Standards	Welding Cost, Codes, Standards, Specifications, Structural and Pipe Welding	Lecture, Students in lab practicing welding processes.	1,2,4,5,7,8,A,B,C
7/16/2018	Chapter 20 Welding Cost, Codes, Standards	Welding Cost, Codes, Standards, Specifications, Structural and Pipe Welding	Lecture, Students in lab practicing welding processes.	1,2,4,5,7,8,A,B,C
7/17/2018	Chapter 20 Welding Cost, Codes, Standards	Welding Cost, Codes, Standards, Specifications, Structural and Pipe Welding	Lecture, Students in lab practicing welding processes.	1,2,4,5,7,8,A,B,C
7/18/2018	Chapter 20 Welding Cost, Codes, Standards	Welding Cost, Codes, Standards, Specifications, Structural and Pipe Welding	Lecture, Students in lab practicing welding processes.	1,2,4,5,7,8,A,B,C
7/19/2018	Chapter 21 Reading Technical Drawings	Types of drawings, special views, lines, dimensioning, graph paper, computers and drawings	Instructor will demonstrate proper welding techniques for welder certification.	1,2,4,5,8,A,B,C
7/23/2018	Chapter 21 Reading Technical Drawings	Types of drawings, special views, lines, dimensioning, graph paper, computers and drawings	Instructor will demonstrate proper welding techniques for welder certification.	1,2,4,5,8,A,B,C
7/24/2018	FINAL EXAM	FINAL EXAM	FINAL EXAM	1,2,3,4,5,6,7,8,A,B,C

**COMPETENCY AREAS:**

1. Industrial Safety and Health Practices
2. Hand Tool and Power Machine Use
3. Measurement
4. Laboratory Operating Procedures
5. Welding Power Sources
6. Welding Career Potentials
7. Introduction to Welding Codes and Standards
8. Welding Inspection

**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.