



## Overhead Shielded Metal Arc Welding / WELD 1070 COURSE SYLLABUS Fall Semester 2015

Semester: Fall 2015  
Course Title: Overhead Shielded Metal Arc Welding  
Course Number: WELD 1070  
Credit Hours/ Minutes: 4 / 5000  
Class Location: Room #6106  
Class Meets: M/T/W/R 2:31- 4:00 pm  
CRN: 20112

Instructor: Mr. Chris Cumbee  
Email Address: ccumbee@southeasterntech.edu  
Day Instructor: Mr. Chris Cumbee  
Office Location: Room 6106 Building 6  
Office Hours of Day Instructor: M/T/W/TH/ 7 – 8 am  
Email Address: ccumbee@southeasterntech.edu  
Phone: 478-289-2325

**REQUIRED TEXT:** None Required

**REQUIRED SUPPLIES & SOFTWARE:** Spiral notebook, pen, highlighter, welding helmet, 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 2<sup>nd</sup> week of class; no exceptions.**

**PRE-REQUISITE(S):** All Required,

**CO-REQUISITE(S):** None

**COURSE DESCRIPTION:** Introduces the major theory, safety practices, and techniques for shielded metal arc welding (SMAW) in the overhead position. Qualification tests, overhead position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: Overhead SMAW safety and health practices, selection and applications of electrodes for overhead SMAW, overhead SMAW joints, and overhead SMAW specification

**MAJOR COURSE COMPETENCIES:**

1. Overhead SMAW Safety and Health Practices
2. Selection and Applications of Electrodes for Overhead SMAW
3. Overhead SMAW Joints
4. Overhead SMAW to Specification

**COURSE OUTLINE:** Overhead SMAW Safety and Health practices, Selection and Applications of Electrodes for Overhead SMAW, Overhead SMAW Joints, and Overhead SMAW to Specification.

**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.
4. The ability to utilize basic computer skills.

All students pursuing a degree, a diploma, or a Technical Certificate of Credit with a General Education component will be required to pass the General Education Competency Exams prior to graduation.

**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.

**STC ATTENDANCE POLICY:** 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.

**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.

**SPECIAL NEEDS:** Students with documented special needs may be provided with an individualized Instructional Plan with specifications for scheduled instructional time. It is the student's responsibility to inform the Special Needs Specialist as students and instructors are required to have documented evidence prior to receiving or allowing special accommodations. See the STC Catalog and Student Handbook, Student Affairs section for further information regarding special needs.

**SPECIAL NEEDS ADDENDUM:** Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Jan Brantley, Room 2105 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

**MAKEUP GUIDELINES (Tests, quizzes, homework, projects, etc...):** All welding assignments must be completed by the last evening of class.

**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:

##### **--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.

##### **--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.

**--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 second 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:** Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era 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).

**GRIEVANCE PROCEDURES:** Grievance procedures can be found in the Catalog and Handbook located on STC's website.

**ACCESS TO TECHNOLOGY:** For information regarding Angel, the Information Delivery System (IDS), Student Owl Mail, and BannerWeb, please see the IT Department link on STC's website at <http://www.southeasterntech.edu>.

**GRADING POLICY**

Welding Assignments 100%

**GRADING SCALE**

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

**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.*

<b>WELD 1070—OVERHEAD SHIELDED METAL ARC WELDING Fall Semester 2015 Lesson Schedule</b>				
Date	Chapter / Lesson	Content	Assignments Tests	*Competency Area
Aug 17	Work Ethics SMAW Set Up and Electrode Selection	First day of class/Class Introduction—Syllabi, Outline, Rules, Regulations Coverage, Library Resources and tour. SMAW Set Up and Electrode Selection	Refreshing of proper SMAW Set Up and Electrode Selection by instructor. Demonstration given of SMAW of Padded Plate; students practicing SMAW of Padded plate.	1,2,3,4,A,B,D
18	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D

19	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D
20	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D
24	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate	1,2,3,4,A,B,D
25	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate	1,2,3,4,A,B,D
26	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D
27	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D
31	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing Padded Plate.	1,2,3,4,A,B,D
Sep. 1	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate	1,2,3,4,A,B,D
2	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate	1,2,3,4,A,B,D
3	Surfacing, Padded Plate	Surfacing, Padded Plate	Students practicing welding a padded plate	1,2,3,4,A,B,D
7	<b>Holiday</b>	<b>Holiday</b>	<b>Holiday</b>	<b>NO CLASS</b>
8	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
9	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
10	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
14	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
15	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
16	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
17	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D



15	Tee Joints, Multi-Pass Fillet Welds	Tee Joints, Multi-Pass Fillet Welds	Students practicing making multipass fillet welds on Tee Joints.	1,2,3,4,A,B,D
19	Corner Joint	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,A,B,D
20	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,B,D
21	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,B,D
22	Corner Joint	Corner Joint	Students practicing welding corner joints using multi-pass fillet welds.	1,2,3,4,A,B,D
26	Lap Joint	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,A,B,D
27	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,B,D
28	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,B,D
29	Lap Joint	Lap Joint	Students practicing welding lap joints using multi-pass fillet welds.	1,2,3,4,A,B,D
Nov. 2	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,A,B,D
3	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,B,D
4	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,B,D
5	Square Butt Joint	Square Butt Joint	Students practicing welding square butt joints.	1,2,3,4,A,B,D

9	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,A,C
10	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
11	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
12	Edge Joint	Edge Joints	Students practicing welding edge joints.	1,2,3,4,A,C
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,A,C
17	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
18	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
19	Weld All Around	Weld All Around	Students practicing weld all around.	1,2,3,4,A,C
23	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Demonstration given by instructor on how to successfully weld a beveled plate for welder certification. Students practicing on beveled plate.	1,2,3,4,A,C
24	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Demonstration given by instructor on how to successfully weld a beveled plate for welder certification. Students practicing on beveled plate.	1,2,3,4,A,C
25	Holiday	Holiday	Holiday	NO CLASS
26	Holiday	Holiday	Holiday	NO CLASS
30	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A,C

Dec. 1	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A,C
2	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A,C
3	Beveled Plate for Welder Certification	Beveled Plate for Welder Certification	Students practicing on beveled plate.	1,2,3,4,A,C

**Competency Areas:**

1. Overhead SMAW Safety Practices and Health Practices
2. Selection and Applications of Electrodes for Overhead SMAW
3. Overhead SMAW Joints
4. Overhead SMAW to Specification

**General Education 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.
- D. The ability to utilize basic computer skills.