

Shield Metal Arc Welding II

TEWT - 1220 101

Course Description

Learn practical welding skills using the Shielded Metal Arc Welding process on carbon steel. Instruction in safe practices and theory of Shield Metal Arc Welding are continued. Introduction to welder performance qualification practical skills development in welding groove welds. Preparatory to and including welder qualification testing experience.

Semester(s) Taught: All

Course Student Learning Outcomes

- Perform welding skills on tee joints, corner joints, square butt joints and V groove in all welding positions.
- Demonstrate the ability to follow welding procedure specifications.
- Execute practical weld tests and welder performance qualification.
- Identify electrode classifications and select the appropriate electrode.
- Critique welds to a quality standard.
- Minimize the effects of distortion in weldments.
- Select the correct power source for welding applications.
- Identify destructive and non-destructive testing methods.
- Identify different types of metals and compositions.

Engagement Plan

I will respond to email within two days.

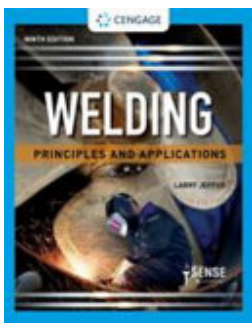
I will offer feedback on major assignments within one week.

The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

Keys for Success (how to succeed in the course)

Attendance and class Participation are critical to each student's success in the course.

Required Text or Materials



Title: Welding

ISBN: 9780357377659

Authors: Larry Jeffus

Publisher: Cengage Learning

Publication Date: 2020-01-17

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Welding Tools & Personal Protective Equipment

Because of their personal nature, and the necessity for welders to have these items on a job, students are required to purchase their own PPE and tools. Each welding student should obtain the following PPE & Tools prior to starting lab courses:

PPE:

1 ea. - Welding Jacket

1 ea. - Split Leg Leather Apron or Leather Chaps, or Coveralls (Must be cotton, denim, or twill material. NO SYNTHETIC MATERIALS!)

1 ea. - Safety Glasses (Clear Lenses Only)

1 Pair - Heavy Welding Gloves

1 Pair – Medium Weight Welding Gloves

1 Pair - Light Weight Welding Gloves

1 Pair - Work boots (Over the ankle. Steel toes not required.)

1 ea. - Welding Helmet (Automatic) (Lincoln, Miller, or Speedglass brands preferred for Auto-darkening) must have grinding mode and cutting mode selection. Extra cover lenses and batteries.

1 ea. - Welding Cap (The uglier the better.)

Tools:

1 ea. - Wire Brush

1 ea. - Triple Flint Spark Lighter

1 ea. - Soap Stone with Holder (Rectangular shape preferred)

1 ea. - Vise Grip Pliers (Optional – Vise Grip “C” Clamp)

1 ea. - 25’ Tape Measure (3/4” to 1” blade width is best)

1 ea. - Combination Lock (Needed if you lease a locker)

1 ea. - Welding Tip Cleaner

1 ea. - Chipping Hammer

1 ea. - Welding Pliers (Special tool for wire feed processes. (WELPERS® or generic brand from discount tool stores)

1 ea. - Calculator (TI 30X IIS or Equivalent)

1 set – Fillet Weld Gauges

1 ea. – inspection flashlight

1 ea. – 4-1/2-inch angle grinder (Example: DeWalt DWE4011)

Brief Description of Assignments/Exams

At the completion of this course, students shall have demonstrated to the instructor job entry level competencies, including:

- Perform welding skills on tee joints, corner joints, square butt joints and V groove in all welding positions.
- Demonstrate the ability to follow welding procedure specifications
- Execute practical weld tests and welder performance qualification
- Identify electrode classifications and select the appropriate electrode
- Critique welds to a quality standard
- Minimize the effects of distortion in weldments
- Select the correct power source for welding applications
- Identify destructive and non-destructive testing methods
- Identify different types of metals and compositions

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Module 10: Check Your Knowledge	Quiz	9

Due Date	Assignment Name	Assignment Type	Points
	Module 10: Project #1	Assignment	4
	Module 14: Check Your Knowledge	Quiz	9
	Module 15: Check Your Knowledge	Quiz	10
	Module 19: Summative Exam	Quiz	45
	Module 19: Welding Project #2	Assignment	4
	Module 2: Quiz	Quiz	31
	Module 3: Check Your Knowledge	Quiz	10
	Module 4: Check Your Knowledge	Quiz	0
	Parts of Welds Activity	Quiz	0
	Roll Call Attendance	Assignment	100

Grading Scale

A (90-100%)

B (80-89.9%)

E (Below 79.9%)

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)