Cocke County High School

*Welding 1
*2025/2026 Syllabus

Part 1: Course Information

Instructor Information

Instructor: Kimberly Huskey

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Welding I is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the advanced manufacturing industry. Proficient students will develop proficiency in fundamental safety practices in welding, interpreting drawings, creating computer aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication, basic shielded metal arc welding (SMAW), mechanical and thermal properties of metals, and quality control. Upon completion of this course, proficient students will be able to sit for the AWS SENSE Entry Level Welder certification and will be prepared to undertake more advanced welding coursework.

Prerequisite

- Students have to complete Principles of Manufacturing before being eligible to take Welding 1

General Education/High School Pathway Area

Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality. Upon completion of the Principles of Manufacturing course, Welding 1 and Welding 2, students will be prepared to make an informed decision regarding which Advanced Manufacturing program of study to pursue.

Textbook & Course Materials

Required Text

Miller Openbook cirriculum

Course Requirements

- Internet connection (DSL, LAN, or cable connection desirable)

- Access to /Web site/Other
- Pencil, Paper, Notebook
- Long Pants, Leather Boots

Course Structure

The class will be delivered by lecture, discussion, activity, lab-based, test, groups, homework, and classwork.

Part 2: Student Learning Outcomes

*Expected student learning outcome for this course. The student learning outcomes for each course can be found in the Tennessee State Standards, course pacing guide, and other resources pertaining to your course. These can be found on TN. Gov under Academic Standards.

A bulleted list is a good way to display these objectives as shown below:

- Safety
- Understand thermal properties and tensile strength
- Being able to measure welds

You will meet the objectives listed above through a combination of the following activities in this course:

*Most objectives will be met through 1) Classwork, 2) Homework, 3) Test,) 4 Groups. Students will be provided dates to complete assignments. If a student is absent and it is excused the student will be allowed 3 days to make up any missed work.

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Part 3: Welding 1/Topics Covered

Semester 1

Week	Topic	Readings/ Resources	Activities	Due Date
1	Safety/Test	PowerPoint	Test	Aug.
2	Safety	Lecture	Notes	Aug.
3	History	Lecture	Notes	Aug.

4	Careers	Lecture	Notes	Aug.
5	Blueprints	Lecture	Notes	Aug.
6	Welding Design	Lecture	Notes	Sept.
7	Metal Welding	Lecture	Notes	Sept.
8	AWS-Class	Lecture	Notes	Sept.
9	AWS-Flat	Lecture	Notes	Sept.
10	AWS-Horiz.	Lecture	Notes	Oct.
11	AWS-Vertical	Lecture	Notes	Oct.
12	AWS-Overhead	Lecture	Notes	Oct.
13	Thermal	Lecture	Notes	Nov.
14	Tensile Strength	Lecture	Notes	Nov.
15	Ductility	Lecture	Notes	Nov.

16	Quality Control	Lecture	Notes	Dec.
17	QC Stand.	Lecture	Notes	Dec.
18	Sem. Exam	Lecture	Notes/Test	Dec.

Semester 2

Week	**Topic**	**Readings/ Resources**	**Activities**	**Due Date**
1	Safety/Test	PowerPoint	Test	Jan
2	Safety	Lecture	Notes	Jan.
3	History	Lecture	Notes	Jan.
4	Careers	Lecture	Notes	Jan.
5	Blueprints	Lecture	Notes	Feb.
6	Welding Design	Lecture	Notes	Feb.

`7	Metal Welding	Lecture	Notes	Feb.
8	AWS-Class	Lecture	Notes	Feb.
9	AWS-Flat	Lecture	Notes	Mar.
10	AWS-Horiz.	Lecture	Notes	Mar.
11	AWS-Vertical	Lecture	Notes	Mar.
12	AWS-Overhead	Lecture	Notes	Apr.
13	Thermal	Lecture	Notes	Apr.
14	Tensile Strength	Lecture	Notes	Apr.
15	Ductility	Lecture	Notes	May
16	Quality Control	Lecture	Notes	May
17	QC Stand.	Lecture	Notes	May

18	Sem. Exam	Lecture	Notes	May

***Calendar/Schedule: The class schedule maybe subject to change if school is cancelled due to snow or any unforeseen circumstances such as school scheduling which may arise during the school year. If you have any questions pertaining to the schedule you may reach the instructor with the above email for further questions.**

This class has a semester exam.

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Part 4: Grading Policy

Graded Course Activities

Assignments for details about each assignment listed below.

1st 9 Weeks

Points	**Description**
*# 100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
2nd 9 Weeks	
Points	**Description**
*# 100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
3rd 9 Weeks	
Points	**Description**

*100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
4th 9 Weeks	
Points	**Description**
*100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.

Late Work Policy

* Be sure to pay close attention to deadlines—there will be no makeup assignments or test, or late work accepted without a serious and compelling reason and instructor approval.

Viewing Grades in ASPEN (optional)

Points you receive for graded activities will be posted to the ASPEN Grade Book. Click on the My Grades link on the left navigation to view your points.

* Your instructor will update the online grades each time a grading session has been complete—typically 2 days following the completion of an activity. You will see a visual indication of new grades posted on your ASPEN home page under the link to this course.

Letter Grade Assignment

* Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

100% of Participation

Grading Scale:

A = 93 -100

B = 85 - 92

C = 75 – 84

D = 70 – 74

F = 0 – 69

I = Incomplete