



**STEEL CENTER**  
FOR CAREER AND TECHNICAL EDUCATION

## PROGRAM BRIEF

# Welding Technology: 48.0508

2024 – 2025

412.469.3200 x 6746

### **Instructional Goals:**

Students study and apply various phases of welding. Upon satisfactory completion of this three-year program, the student will have developed the skills necessary to meet the minimum entry-level requirements for the welding trade's profession, in accordance with standards set by the American Welding Society, American Society of Mechanical Engineers and the American Bureau of Ships.

### **Primary resources:**

Welding, Level 1 Trainee Guide 5<sup>th</sup> Edition  
Welding, Level 2 Trainee Guide 5<sup>th</sup> Edition

### **Course Outline/Demonstrated Skills:**

Orientation and shop safety  
Principles of welding  
Blueprint reading, weld symbols and fabrication from blueprints  
Visual examination, inspections and testing  
Shielded Metal Arc Welding (SMAW)  
Gas Metal Arc Welding (GMAW)  
Flux-Cored Arc Welding (FCAW)  
Gas Tungsten Arc Welding (GTAW)  
Oxygen-Fuel Cutting (OFC) – manual and mechanized  
Plasma Arc Cutting (PAC)  
Carbon Arc Cutting – Air, manual (CAC – A)  
Hand tools including measuring and layout tools  
Portable and stationary power tools and equipment usage

### **Daily required materials/items:**

Enter classroom daily with a pencil and class notebook  
Student must have personal protection equipment (PPE) daily – this includes safety glasses, welder's hat, 100% cotton work shirt (needs to be long sleeve and button at the neck) and pants (no cuffs or tears/frayed edges), leather type work boots, and leather or fire rated jacket.

**Assessment and Evaluation:**

All tests, quizzes, daily assignments, weekly logs, midterm and final will be graded using Steel Center's grading system:

100 – 90	A
89 – 80	B
79 – 70	C
69 – 60	D
59 or below	F

**Measures of Achievement:**

**Work Ethics grade (daily grade)** – this grade is based on attendance, punctuality, behavior, preparedness, participation, productivity, professional appearance and effort. This area accounts for 34% of the total grade.

**Task Attainment grade** – this grade is based on the evaluation of the quality of work performed, based on industry standards, tests, written assignments, mid-term and final exams, and the development of a class notebook. Due dates will be assigned for projects and poor productivity can have a negative effect on this grade. This area accounts for 66% of the total grade.

**Assignments/Timeline:**

Weekly logs are due every Friday or the last day of the week  
Students will be assessed daily using the work ethic portion of the grade  
Completed projects will receive a skill assessment grade  
Completed reports will receive a knowledge grade

**Other grading factors:**

Students are expected to behave in a respectful and responsible manner – do not take any unnecessary risks, ask teacher for help.  
Students need to attend class regularly and on time.  
Students need to follow all class/shop rules and school rules.  
Electronic devices are *not permitted* to be in use when class is in session.

**Classroom/Shop Rules:**

- Be prompt
- Be prepared
- Be polite
- Be productive
- Plus, follow school rules

**Consequences:**

1. Warning
2. Point deducted from daily grade
3. Parental consultation
4. Office referral

**STEEL CENTER for CTE**

**WELDING**

**2024-2025**



---

**SYLLABUS AND PROGRAM RULES**

**ACKNOWLEDGEMENT SHEET**

**FOR STUDENT:**

With my signature, I acknowledge that I am fully aware of the rules, procedures, and expectations for my CTE program of study. I understand that my signature indicates awareness and not necessarily approval.

Student name: \_\_\_\_\_

Student signature: \_\_\_\_\_

Date: \_\_\_\_\_

\*\*\*\*\*

**FOR PARENT/GUARDIAN:**

With my signature, I acknowledge that I am fully aware of the rules, procedures, and expectations for my son or daughter's CTE program of study. I understand that my signature indicates awareness and not necessarily approval.

Parent/Guardian signature: \_\_\_\_\_

Parent/Guardian signature: \_\_\_\_\_

Date: \_\_\_\_\_