



# Welding Fundamentals Student Handbook



September 27, 2023

## Welcome to the Welding Fundamentals Class at Laurel Ridge Community College!

Please review this Course Specific Handbook, as well as the Laurel Ridge Student Handbook and Student Codes of Conduct. This information is found at [www.laurelridge.edu](http://www.laurelridge.edu) .

### **Student Learning Objectives /Course Outlines**

This class is ideal for new welders and those who want to enhance current welding skills. Our Welding Program is designed to American Welding Society (AWS) standards and prepares students for an AWS Certification. This will prepare you for an entry level position and can help you to get your foot in the door with companies. **Many companies will require that you complete a certification with them as a part of your application process to prove you have the needed skills.**

#### *Class description:*

The Welding Fundamentals class is the first in a series of classes designed to equip students with the necessary skills required for a successful welding career. In this class, you will learn various welding techniques and processes, industry practices, and safety protocol. The primary focus of this class will be on SMAW welding, but you will also get training in FCAW welding. Students will gain hands-on practice welding different types of joints on flat plate (1G), vertical up (3G) and overhead (4G) positions. Upon completion, students are eligible to attempt the D1.1 SMAW Plate Welder qualification exam in the SMAW process aligned with the American Welding Society (AWS). The textbook, supplies, and testing are included in the tuition for this class that will be the first step in developing a well-rounded and in high demand skill set sought after by employers.

### **Student Essential Performance Standards**

Students are expected to complete course requirements that prepare them to perform essential job functions as a Welder. These functions and skills are:

- **Control Precision** — The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- **Near Vision** — The ability to see details at close range (within a few feet of the observer).
- **Manual Dexterity** — The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- **Problem Sensitivity** — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem.
- **Arm-Hand Steadiness** — The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- **Static Strength** — The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- **Trunk Strength** — The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without "giving out" or fatiguing.
- **Reading Comprehension:** The ability to understand text in written form.

**Students should be able to read/comprehend at a minimum of a 10<sup>th</sup> grade reading level to be successful in this program.**

*Any student who thinks he/she does not possess one or more of these functions should contact the disability services provider at the campus. Provisions for accommodations will be made in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. For more information, please go to <https://laurelridge.edu/disability/>.*

### **Admission Requirements**

Must complete registration for the class including the payment to Laurel Ridge Community College.

### **Contact Information**

The instructor will provide contact information on the first day of class.

### **Books, Supplies, Exams**

All books, supplies and exams are included in the cost of tuition. Textbooks will be given out the first night of class. This will include your MindTap code.

*Students will be given the supplies needed to be successful throughout the class. Items like leather gloves, helmets, safety glasses are all shared among all students. If you feel more comfortable buying and bringing your own personal supplies to each class, you are welcome and encouraged to do that.*

### **Course Structure**

This course is 104 hours of classroom lecture/lab. Students need to be prepared to spend several hours outside of class each week completing homework to be successful. Regular computer and internet access are required as all homework is complete online. On average, students will spend around 2-4 hours per week on homework (reading, studying, MindTap) outside of the classroom.

**\*Components of this course will be offered through “Canvas” which is an online learning management system.** You will receive an email before the start of the class for how to access this. If you have a laptop or tablet that you will be using throughout the class, please feel free to bring it on the first night of class so that we can better assist you with accessing online components.

### **Class Expectations**

Students will actively be working in the lab and it is expected that students participate in all lab activities.

### **Grading System**

- Must achieve a minimum of a 70% to successfully complete the class.
- Each of the following make up one-third of your total grade:

- MindTap homework (34%)
- Final Project (33%)
- Attendance/class participation (33%)

### **Attendance Policy**

Students are expected to be present, on time, and ready to participate at all regularly scheduled classes. This is a rigorous program and attendance is vital to success. One of the top reasons why people are fired is for tardiness or not showing up for their scheduled shift! Workforce Solutions facilitates learning opportunities and connections that empower individuals, organizations, and communities. By meeting these expectations, students will be prepared for solid attendance at their future workplace.

- Being tardy **more than 10 minutes** (or leaving early) to class will count as an absence.
- In case of an emergency or illness that will result in an absence, students are to contact the instructor prior to class.
- **An absence for a Saturday class will count as 2 misses as it is really 2 classes combined.**

**Missing more than 4 classes will result in being dismissed from the program.** It is recommended that you save your absences to use in case of illness or emergency. There is no distinction between "excused" and "unexcused" absences, use your absences wisely in case an emergency occurs.

**A good motto -- PLAN TO BE IN EVERY CLASS, don't plan to be gone.**

***Failure to make up any missed work may result in a "zero" for that assignment.***

### **Grounds for Dismissal from the Program**

Include but are not limited to:

- Disrupting the class.
  - Only one warning will be given before a student is removed from the class.
- Exceeding the number of absences and/or tardiness.
- Damaging or incorrectly utilizing the equipment after being instructed how to properly use it
  - Please be aware: **Students may be charged the cost of fixing the equipment if it is determined that equipment was purposefully damaged.** This equipment is extremely expensive, and everyone needs to properly handle it. If you are not sure – ask!

- Stealing

**No refunds will be given upon dismissal from the program and students may be responsible for repayment of 1/3 of the class cost if Fast Forward Funding was used. Students may follow the college's grievance process if they wish to have their decision reviewed.**

### **Certification Exam Information**

- Students will take their qualification exam at the very end of the class, as part of the course.
- Students will take SMAW testing as a part of this class. It is recommended that a flat certification is attempted first. However, if an instructor has evaluated the work of the student and feels they are ready, they may only attempt 3G, 4G certs to obtain unlimited positioning. In this instance, if they are successful with these attempts, they will only take 2 certification tests in class. If, however, someone attempts the flat certification and is successful, they can then attempt the 3G, and/or 4G qualification tests before the class time runs out.
- If a student is unsuccessful with the first attempt, they can potentially have up to 2 more chances in the same position before the class time runs out.

### **Cancelled Classes/Emergency Alerts**

If for any reason the instructor needs to cancel a class, students will receive an email or phone call as soon as Workforce Solutions is notified. **It is your responsibility to keep your contact information current so that we can reach you.** Cancellations are not always system wide. Please check cancellation notices for specific campus details.

**Laurel Ridge Community College uses Laurel Ridge Alert to immediately contact you during a major crisis or emergency. All weather-related cancellations will also be relayed through Laurel Ridge Alert.**

*Sign up for Laurel Ridge Alert to receive emergency messages, weather-related notifications, and other important messages from Laurel Ridge Community College!*

*Sign up here: <https://laurelridge.edu/emergency-alerts/> or text the word "Laurelalert" to 226787.*

### **Cell Phone/Electronics Policy**

**Cell phones may not be used during class.** Students are not to take or place calls, send or receive text messages, or use social media applications during class. All cell phones are to be turned to silent, not vibrate, while in class. Students are permitted to bring laptops/tablets to class to be used only for class related material.

Please be aware that metal shavings can quickly damage computers. So, please do not set your personal devices near welding booths or lab space.

### **Dress Code**

#### What to Wear

- Long pants (preferably jeans or cargo pants)
- 100% cotton shirt, long sleeve or t-shirt depending on the weather

- Shoes should be leather & at least over the ankle (6”), high tops (8”) are highly recommended; steel toes are preferred.
  - Hair tie if necessary
- \*\*\* Everything you wear could be potentially damaged by the nature of the class. Please do not wear anything you don't want to be ruined.*

#### What NOT to Wear

- Shorts
- Tennis shoes/Flip flops
- Anything flammable or easily meltable (like nylon, flannel, or synthetic material)
- Frayed or cuffed pants

#### **Smoking**

Smoking is permitted in designated areas on campus.

#### **See Something, Say Something**

If you have a concern about something you've observed or heard that may give you concern about another student, impact the safety of our environment, or disrupt the delivery of our educational process, we encourage you to [fill out the See Something, Say Something report form](#). This link can be found at <https://laurelridge.edu/see-something-say-something/>.

#### **Community Resources**

If you find yourself in need of additional support throughout your course, please check out our [www.laurelridge.edu/wecare](http://www.laurelridge.edu/wecare) website for more information. We offer food assistance, financial assistance, mental health resources and much more! Don't wait to reach out if you need help.

\*\*\*\* This document is subject to change based on the needs of the program. \*\*\*\*

### Welding Lab Guidelines

To keep the welding lab up to standard for all the welding classes and guests to our campus (future students and employers), everyone is expected to do their part in keeping the lab clean at the end of every class.

1. Students must wear the following while welding (**no exceptions ever**):
  - a. Helmets
  - b. Gloves
  - c. Jackets
2. Students should be considerate of classes in other labs.

At the end of the class:

3. Curtains must be open
4. Dust the top of the booth
5. Sweep the floor
6. Sweep behind welding machines as necessary
7. Scoop off the extra shavings on the band saw (everyone's responsibility)
8. All materials should be hung up or put back in their proper place.
9. The table in the middle of the room should be kept cleaned of all projects and materials.

**\*\*\*\* Clean up starts at least 15 minutes before the end of the class. This is mandatory for everyone.**

**\*\*\*\* If materials end up missing, students may be held responsible for paying for the replacement.**

### **STATEMENT OF UNDERSTANDING**

I have read, understand, and agree to abide by the requirements of the Welding Fundamentals program as stated in The Welding Fundamentals Student's Handbook.

I have read, understand, and agree to abide by the general policies of the College as stated in the College Catalog.

As I complete the Welding Fundamentals Course, it is my responsibility to clarify what I do not understand regarding the requirements of the course with the instructor, in a proactive and professional manner.

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

Student's Printed Name:

Student's Signature:

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