



# 2025 WELDING

Hello Oregon SkillsUSA Advisors!

I hope you and your students are getting excited for SkillsUSA Championships for Oregon!

I want to say thank you in advance to all of you for your patience and grace as we continue to learn and navigate SkillsUSA and the requirements to hold the competition on our campus.

Below you will find a large amount of information regarding the competition as well as some attachments that may be critical for your students to compete.

## Some ground rules:

- Safety is number 1!! If a student is seen doing something unsafe they may be asked to leave the competition area.
- The waiver form at the end of this document must be signed, filled out and returned to LBCC. These can be signed and emailed or brought with the competitors. Each student **MUST** do this in order to compete!
- Each school is responsible for all needed Welding PPE such as gloves, hoods safety glasses etc
- No advisors are allowed in the shop areas while welding is going on without an LBCC staff member
- LBCC campus has many policies and expectations. These can be found on our website <https://www.linnbenton.edu/about-lbcc/administration/policies/index.php>

## Advisors:

We will be utilizing a Forum to hold you and your competitors while others are working on completing their projects. A map of locations of competitions and buildings will come next week as well as competitor times. It is important that you do not leave competitors without an advisor while waiting to compete throughout the duration of your time on our campus.

Advisors will not be allowed into the working shop spaces but can view from outside the doors or through windows, or with a designated individual from LBCC may be able to walk through the areas but cannot interfere with any competition taking place.



## **Welding Competitions (Saturday)**

Here is a basic rundown of what contestants will see for our welding competitions.

All competitions will involve assembly of parts using a simple orthographic blueprint

### MIG

- Short-arc welding on 14 gauge and ¼ material in Flat, Horizontal and Vertical position using Millermatic 220v machines.
- Tee, Lap, Butt and Corner Joints possible
- Machines will be zeroed out and will have to be set by each student
- Students will have 30 minutes to perform a series of welds
- Students will be provided scrap to set the machine and practice within the time allotted.
- Students in the category are strongly encouraged to have welding pliers as we will not be providing these for contestants.

### SMAW

- Stick Welding using e7018 & e6010 in the horizontal, Flat & vertical positions.
- Machines Miller XMT 350
- Welding will be on ¼" material utilizing Tee, Lap and Open Root Groove Joints(1/16" gap).
- Welding machines will be zeroed and must be set by students competing.
- Students will have 30 minutes to complete a series of welds including practice time on scrap.
- Students in this category are encouraged to bring their own chipping hammer, wire brush, and pliers. We will have them available if needed.

### GTAW

- GTAW welding on Mild Steel in the horizontal and flat position.
- Tee, Lap, Butt and Corner Joints possible
- Tig torches will be set up with regular collet bodies and 1/8" 2%Lanthanated Tungsten.
- Machine Syncrowave 250.
- Material will be 10 ga mild steel as well as 14 ga mild steel.
- Welding machines will be zeroed and must be set by students competing.
- Students will have 30 minutes to complete a series of welds including practice time on scrap.



#### OXY Fuel

- Oxy Fuel welding on mild steel (14ga) in the flat and horizontal positions including Tee, open corner, and open root butt joints (1/16"gap.)
- Material will be 14 Ga mild steel
- Equipment will be zeroed and must be set by students competing.
- Victor Journeyman torches with ) 0 size tips will be used.
- Students will have 30 minutes to complete a series of welds including practice time on scrap.

#### FCAW

- FCAW on 1/4" mild steel in the flat, horizontal, and vertical positions using Millermatic 220v machines.
- Tee, Lap, Butt and Corner Joints possible
- Machines will be zeroed out and will have to be set by each student
- Students will have 30 minutes to perform a series of welds
- Students will be provided scrap to set the machine and practice within the time allotted.
- Students in the category are strongly encouraged to have welding pliers as we will not be providing these for contestants.



## **Welding and Fabrication competitions (Friday)**

### Welding

LBCC is using the recommended projects and scoring criteria for this year's Welding competition. The thought behind this is to help your students gain insight as to what they may encounter if they are going to compete in the National SkillsUSA event.

As recommended, contestants will have 30 minutes to complete each of these weldments as well as the oxy acetylene cutting for a total of 1 hour and 30 minutes.

### All competitors registered for welding will utilize:

GTAW Aluminum

FCAW-G

SMAW 7018

GMAW-S

as well as

Oxy Fuel Cutting

Contestants will be welding out a single steel weldment, a single aluminum weldment, and cutting 1 plate to tolerances.

Machines utilized will be:

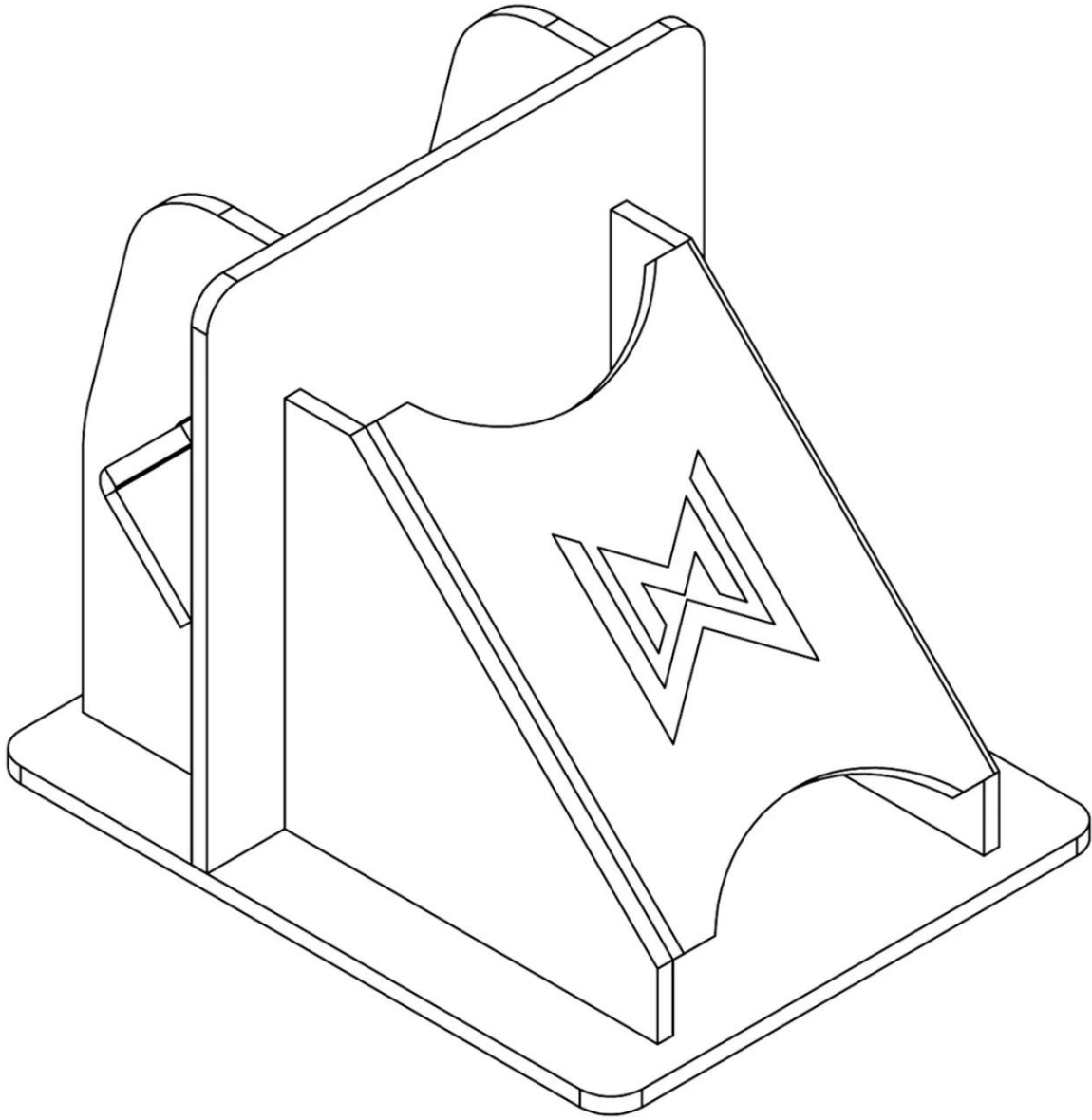
Miller XMT 350 - FCAW and SMAW

Syncrowave 250 - GTAW

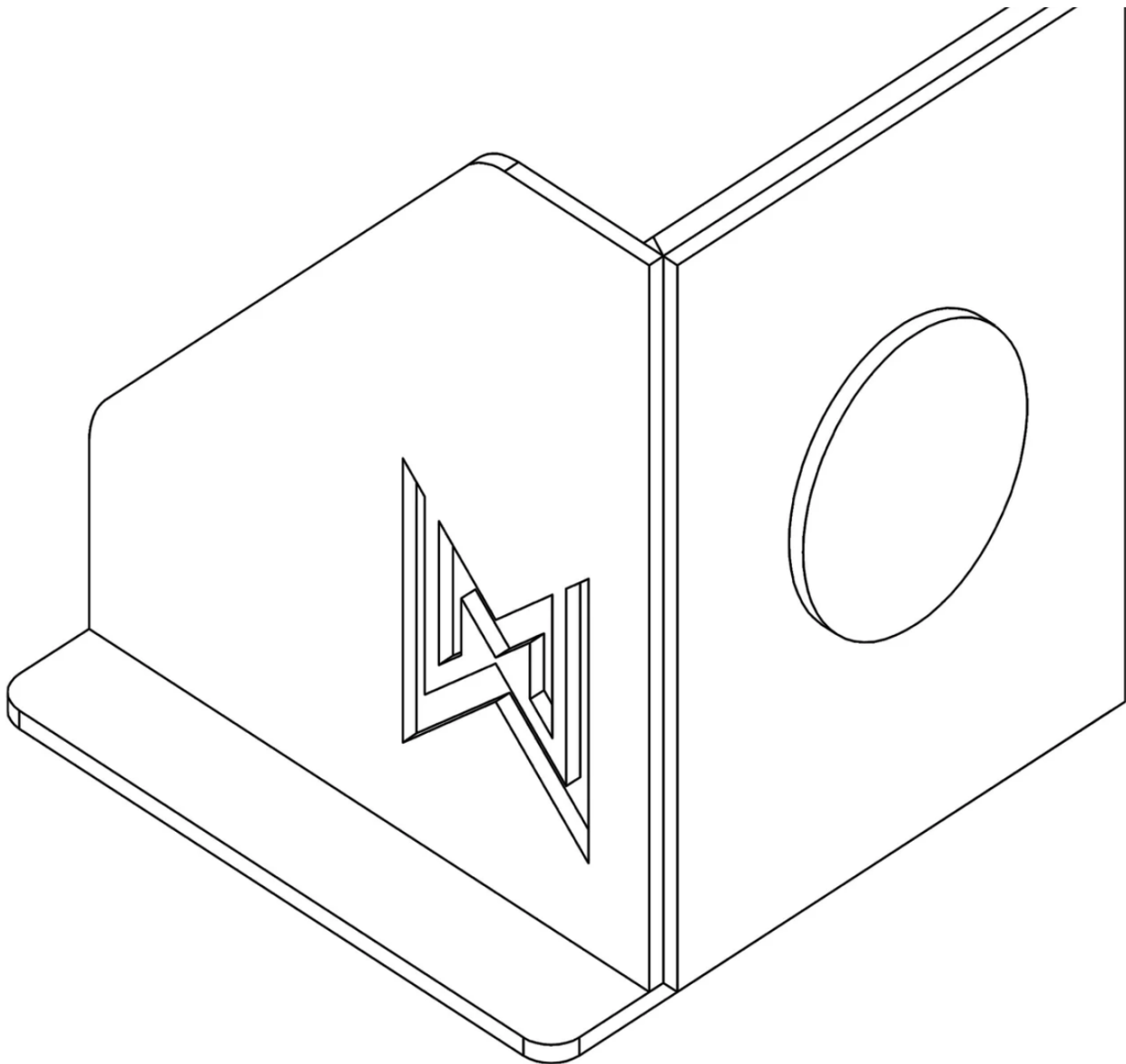
Millermatic 252 - GMAW-S

Victor Journeyman cutting equipment.

Students in this category will be required to utilize oxy fuel cutting to a print. Material will be ¼" Mild Steel. This will require layout and measurement to follow the print properly.



STEEL Project



ALUMINUM Project



Competitors for Team Fabrication will utilize:

OXY Fuel Cutting  
GTAW Steel  
GMAW-S

Students in this category will need to bring fabrication tools with them in order to complete a welding and cutting table. This table will consist of square tubing, ¼" Plate, ⅛" Flat Bar, angle iron, 14 Ga sheet metal, and other necessary materials.

Drawing to come soon.

Contestants should anticipate all parts will need to be cut to size.

\*Note all cuts will be made utilizing OFC and cuts can be ground in order to achieve the appearance the students would like.

Supplied by the contestant team:

- Speed square
  - 24" Square
  - Dividers or Marking compass
  - Up to two 4 ½" grinders (must be in good working order with guards and safety features enabled)
  - Assorted hard and flap or sanding type grinding wheels
  - 4 pair C-Clamps
  - Tape measure(s)
  - Soapstone with holder
  - Scribe with magnet
  - Calculator
  - PPE for shop space, welding hood, grinding shield, safety glasses, oxy goggles, etc.
  - Combination Square
  - Fillet Weld Gauge Set
  - Wire brush
- (Contestants may also want to bring a drop cord and a 3-way plug.)

Time allotment for this competition is 5 hours total with ½ hour break for lunch.

Lunch for these contestants shall be within their shop space or local classroom with no communication to advisors or other students.

We look forward to your participation in the 2025 SkillsUSA Oregon Championships!

LBCC Welding



**PLEASE READ CAREFULLY BEFORE SIGNING**

**INFORMED ACKNOWLEDGMENT OF HAZARDS AND RISKS**

**LIABILITY WAIVER & INDEMNIFICATION FORM**

Class/Club/Activity – Skills USA Welding

Date(s) April 2025

Location- LBCC Main Campus; 6500 SW Pacific Blvd.; Albany, OR 97321

You will be participating in the following class/club/activity (“Activity”):

Skills USA Welding

**I understand** that the above described activity (Activity) has **foreseeable and unforeseeable hazards and risks**, including hazards and risks which cannot all be eliminated due to the nature of the Activity. By example (not all inclusive), some hazards that could be encountered include metal or wood sparks or splinters; toxic materials, gases, fumes, or spills; explosions or fire; equipment failure; slip, trip, or fall hazards; and heavy materials and industrial equipment. I understand that **participation in the Activity will expose me to these hazards and risks. I understand that I or another person may suffer injury** because of these hazards and risks, and these injuries may cause physical, emotional, economic, or non-economic harm to me or another person.

By signing this document, **I am making a voluntary and informed decision to expose myself to the hazards, risks, and injuries in any way caused by or related to my participation in the Activity.** I understand that it is my responsibility to learn about risks, hazards, and injury inherent to the Activity. I intend to learn about and follow all safety procedures. Also, I understand that if at any time I have concerns about safety, health, hazards, risks, or injury related to the Activity, then **it is my responsibility to inquire of knowledgeable persons about my concerns.** By signing this document, I understand that I am waiving particular rights enumerated below.

To the fullest extent allowed by law, by signing this document, **I hereby agree to waive, discharge, indemnify and hold harmless any and all claims, demands, liabilities, fees, and costs for damage, injury, or death related to the Activity and held by me or any third party against Linn-Benton Community College and its officers, employees, and agents.** This agreement shall be binding upon my heirs, successors, and assigns. I understand and acknowledge that **signing this agreement severely limits my legal rights**, and I agree to waive those rights in consideration of participation in the Activity. I understand that I am not obligated to participate in this activity or to sign this form.





This Agreement is intended to be as broad and inclusive as is permitted by law. If any provision or any part of any provision of this Agreement is held to be invalid or legally unenforceable for any reason, the remainder of this Agreement shall not be affected thereby and shall remain valid and fully enforceable.

**READ BEFORE SIGNING:** By signing this document, you acknowledge the following: **I have read and do understand page one (1) of INFORMED ACKNOWLEDGMENT OF HAZARDS AND RISK: LIABILITY WAIVER AND INDEMNIFICATION FORM;** and **I am waiving particular rights enumerated on page one (1).** A complete copy of this form will be provided to me upon request.

DATE \_\_\_\_\_

**IF UNDER 18 YEARS OF AGE, MUST BE SIGNED BY PARENT/GUARDIAN**

Printed Name

Signature

Student \_\_\_\_\_

Parent/Guardian \_\_\_\_\_