



Welding

Location: COS, Tulare

Chairperson:

Chris Huff

christopherhu@cos.edu

College of the Sequoias

CHECK IN: 9:30 am

CONTEST BEGINS: 9:45 am

ELIGIBILITY:

Individual entries only. Refer to General Rules and Information for more information. Each High School may send a maximum of two students. Contest is open to the first 20 students to register.

COMPETITION DESCRIPTION:

Students will choose to compete in either GMAW or GTAW welding and will indicate their choice on the registration form.

- **GMAW:** Students will perform a Weld Qualification Test to the Sheet Metal Code AWS D9.1 consisting of two GMAW butt welds on mild steel in the **Vertical Down** position. One weld will be on 16 gage mild steel, and one will be on 10 gage mild steel. The weld coupons will measure 2"x 6". The completed welds must be full penetration welds for at least 5 continuous inches, with the first half inch and the last half inch not being evaluated.
- **GTAW:** Students will perform a Weld Qualification Test to the Sheet Metal Code AWS D9.1 consisting of two GTAW butt welds on mild steel in the **Vertical UP** position. One weld will be on 16 gage mild steel, and one will be on 10 gage mild steel. The weld coupons will measure 2"x 6". The completed welds must be full penetration welds for at least 5 continuous inches, with the first half inch and the last half inch not being evaluated.

-Grinders will be available for preparing weld material prior to welding.

-No post-weld alteration of the weld is permitted.

-Students will be provided with one scrap piece of 16 gage steel and one piece of 10 gage steel to run practice welds on and set/ fine tune their welding machine.

EQUIPMENT AND MATERIALS:

- Students will be supplied Welding hoods, gauntlet style welding gloves, and safety glasses if requested.
- Students may bring their own welding hoods and PPE they prefer.

JUDGING CRITERIA:

- Welds will be judged by American Welding Society Certified Welding Inspectors according to the criteria of the AWS D9.1 Sheet Metal Code.
- Welds must present a minimum of 5 continuous inches of full penetration containing no pinholes or other defects.
- Additionally, Welds will be evaluated for uniformity and overall appearance.



WELD QUALIFICATIONS:

Any Students who successfully completes their weld Qualification Test to the standard of the Code will receive an AWS CWI Stamped/signed Weld Qualification Test Record (Weld Cert) regardless of placement in the competition.