

State Business and Industry Committee Recommendation

After discussion and review of the survey results, this group reached the following conclusions about assessment/industry standards for an entry level welder, with three exit levels. Each level contains three parts: skills/demonstration test, foundational skills and knowledge of welding fundamentals. It was agreed that this will allow industry to be able to properly evaluate each student's skills set.

Basic/Level One Welder:

1. Skills Test – Tested to AWS D.1.1 standard. Proficient in up to 2F and/or 1G welding positions. Proficient in all basic processes, including SMAW, GMAW, FCAW, GTAW, on carbon steel for static structures.
2. Foundational Skills – Kansas *WORKReady!* Certificate – Silver Level
3. Welding Fundamentals – academic skills needed for a craftsman welder - to be developed and recommended by B & I welding subcommittee – select basic skill requirements from existing AWS Level 1 assessments or other similar tests that capture the required knowledge for this very basic exit point welder.
4. Instructor Certification – must pass Basic/Level One Welder assessment

Level Two:

1. Skills Test – Tested to AWS D.1.1 standard. Proficient in plate work in all four positions on carbon steel * – minimum thickness 3/8" plate. All Basic/Level One requirements inclusive at Level Two.
2. Foundational Skills – Kansas *WORKReady!* Certificate - Silver Level
3. Welding Fundamentals – welding competencies equivalent to or same as Level One AWS SENSE exam.
4. Instructor Certification – Minimum AWS CWE. Must be able to weld 3G and 4G positions. Must pass Level Two Welder assessment.

*Use of alloys other than carbon steel can be based on regional employer needs and individual college decision.

Level Three

1. Skills Test – Tested to ASME section 9 qualification standard. Proficient in 6G position, minimum 2" diameter pipe and/or 6" diameter pipe, schedule 80 or less, and a basic coupon with at least two of four processes* (GTAW, SMAW, GMAW, FCAW) on a minimum of carbon steel.
2. Foundational Skills - Kansas *WORKReady!* Certificate - Silver Level
3. Welding Fundamentals – to be recommend by B & I welding subcommittee
4. Instructor Certification – a) minimum AWS CWE (includes a welder certification test with at least one process in one position); b) Kansas state requirements; c) must pass Level Three Welder assessment.

*Process selection can be based on regional employer needs and students' career direction

Safety Standard

The AWS Z standard – Z49.1 – was discussed as being an appropriate standard for safety.