WELDING TECHNOLOGY

AWS S.E.N.S.E. Advanced Welder

Associate of Applied Science Degree
Certificate of Completion

Welders are in greater demand today than at any time during the past 30 years, and the job outlook is expected to remain excellent throughout the foreseeable future. They are needed in energy exploration and production and are required in virtually every field or industry that uses parts made of metal.

Simply stated, welders are people who join metals such as steel, stainless steel, aluminum, titanium, brass, bronze, copper, and nickel. Welding processes vary depending on the application. Extremely delicate and precise items, such as aerospace components and jewelry, may be welded using electron beams, lasers, and plasma, while huge structures for buildings and bridges are typically welded using submerged arc and flux core. Welding may take place in almost any setting: in a laboratory, out-of-doors, or even underwater, as in the case of offshore, oil-and-gas platform construction.

According to the US Department of Labor, job prospects for welders are excellent, with comparable projected job growth in New Mexico. Increases in welder wages have kept pace with or exceeded those of other occupations since 2002.

The DACC Welding Technology program is nationally accredited by the American Welding Society (AWS), and is taught by nationally qualified instructors. DACC welding instructors have extensive welding experience (nuclear, pressure vessels, aerospace, etc.), numeous welding certifications (SMAW, GTAW, GMAW, FCAW, SAW), and extensive experience teaching welding technology. Several DACC welding instructors are AWS Certified Welding Educators (CWE). several of which are also AWS Certified Welding Inspectors (CWI).

The DACC Welding Technology program performs hundreds of welder performance qualification tests every year. DACC welding instructors hold AWS national endorsements for multiple welding/fabrication codes.

The program is competency and performance based, consisting of lectures and hands-on laboratory exercises. Students learn to weld steels, stainless steels, and aluminum alloy plate and pipe with five welding processes. They also learn basic fabrication skills, oxy-fuel cutting, plasma cutting, and air-carbon arc cutting. The DACC Welding Technology Program is one of a handful of programs, nationwide, that has an orbital TIG unit that allows students to join tubing as small as one-quarter inch in diameter. Students are also exposed to heat treating of steel and its effects with a heat-treating oven.

Students are eligible to join SkillsUSA, an organization for high school and post-secondary students that promotes leadership and sponsors skills and leadership competitions at the state and national levels. In addition, students may become members of the American Welding Society (AWS) and participate in the activities of the new AWS El Paso Section.

All students who complete the certificate or associate degree will graduate as certified welders in one or more welding processes on steel, stainless steel, and/or aluminum. (It is important to note that, although some local welding jobs may not currently require certification, nearly all welding jobs nationwide do require it.) DACC welding instructors are well known nationally and have many job contacts in the United States.

Since the technical requirements for the certificate are the same as those for the associate degree, a student may complete the certificate program first and then later apply all the credits earned in the certificate program toward the associate degree. This associate degree then may be applied in its entirety toward the bachelor of applied studies degree offered by NMSU. Alternatively, those planning to teach at the secondary level may apply up to 36 credits earned in the Welding Technology associate degree program toward a bachelor of science degree in Agricultural and Extension Education.

To enter the Welding Technology program, a high school diploma or GED is required, along with good overall health, eyesight, and hand-eye coordination. Students must purchase tools and personal safety equipment, usually costing approximately $900.

Whether taking classes or working on a job site, students enrolled in this program will be required to perform the same job duties and meet the same physical requirements that they will as a graduate in the field. These requirements include the ability to achieve performance qualifications using a variety or processes while welding materials in different positions. Depending where they find employment, graduates may be required to work in extreme temperatures, to lift and safely move 50 pounds, to have good eye-hand coordination, to work safely around compressed gasses and electrical equipment, to ascend and descend ladders, to work safely in confined spaces and awkward welding positions, and to tolerate a noisy working environment.

NOTE: Students must receive a final grade of C- or better in all required WELD courses/Technical Requirements and achieve a cumulative grade-point average of at least 2.0. A grade of C- or better is required in ENGL 1110G Composition I and designated Mathematics courses.