Program Information

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020. Welding is a process for permanently joining metals together by use of an electric-arc to melt a filler-metal into the original metal to make the two pieces as one. Welding can include joining parts such as piping, structural steel, steel plates, pressure vessels, or even small parts; and it can be performed on carbon steel, stainless steel, aluminum, and many other metals. Welding takes the skill and talent of an artist, and that skill can be acquired through training and discipline.

A welder may also be required to cut, contour, and bevel metal plates and structural shapes into dimensions as specified by blueprints, work orders, and templates using torches, saws, shears, or other machine tools.

San Jacinto College offers one of the largest and best-equipped welding training facilities in the region, where students can explore many facets of welding technology and gain access to career paths from manufacturing and industry to inspection and management.

The San Jacinto College welding technology program:

- Has a curriculum designed to meet the needs of the welding industry,
- Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) “TIG,” and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities.

Earning Potential

Welder, Cutter, Solderer and Brazer

Overall: $47,923 per year ($23.04 hr)¹

American Welding Society Certification Wages

- Welder $13.00 - $27.00 hr²
- Pipe Welder $17.00 - $38.00 hr²
- Combo Welder $14.00 - $34.00 hr²
- TIG Welder $13.00 - $28.00 hr²

¹ Source: texasswages.com (http://texaswages.com), Gulf Coast region, 2017
² American Welding Society Payscale Research, 2018

For more information, please contact the following:
Central campus: 281-476-1814 or 281-478-2799
North campus: 281-998-6150, x7639

Campuses

Central Campus
North Campus

Information

The growing demand for qualified welders has necessitated the availability of a curriculum designed to meet the needs of the welding industry. Students graduating from the program will be skillful and have a good understanding of the related and technical information associated with welding. Graduates should be qualified to pass the entry-level certification tests as required by industry. Students completing the program outlined below will earn an Associate of Applied Science (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

Certificate of Technology

The Combination Welder Certificate of Technology is designed to give intermediate and advanced welding experience to those students interested in taking shielded metal arc (SMAW) welding and gas tungsten arc (GTAW) welding on plate and pipe to meet certification tests required by industry. Instruction is provided on plate and pipe welding positions on carbon steel.

Admission

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;¹
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

¹ Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

Plan of Study

Central and North Campuses
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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<td>Intermediate Pipe Welding</td>
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<td>WLDG 2453</td>
<td>Advanced Pipe Welding</td>
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<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
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<td><strong>Total Credits</strong></td>
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**Capstone Experience:** WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)