

WELDING TECHNOLOGY

Suggested First Semester Course

WLDG 1428 Intro to Shielded Metal Arc Welding (SMAW)
WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)
WLDG 1434 Intro to Gas Tungsten Arc Welding (GTAW)

Classroom Materials/Supplies

1. 2lb. ball peen hammer
2. Tool bag (Klein recommended)
3. Chipping hammer
4. Vice grips
5. Wire brushes
6. Pad lock for locker
7. Soap stone and holder with extra soap stone
8. Small LED flashlight
9. Small wedge flat head screw driver
10. Half round bastard file
11. 12" grinder (optional) with cutting disk, grinding disk, and flapper disk (disks are required)
12. Side cutters (Klein recommended)
13. 9"-10" crescent wrench
14. 1 box 1/8" tungsten
15. 150 amp Weld Craft tig torch package
16. 2 jumbo gas lenses
17. Two 1/8" collets
18. 2 each - #6, #8, #10 jumbo cups
19. Two 2' argon hoses with male connectors

Needed supplies is dependent on what classes are being taken

Some of these items are design to wear out and will need to be replaced as needed.

These items may be purchased any place the student would like. If the student already owns some of these items, they are welcome to use them.

Personal Protective Equipment (PPE)

1. Welding helmet – auto darkening, preferred with 10 clear lenses
2. Welders cap and/or bandana
3. Leather jacket or leather sleeves
4. Clear safety glasses
5. Welding gloves
6. Work boots
7. Ear plugs
8. Long pants
9. Cotton long sleeve shirt

WELDING TECHNOLOGY

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.

CONTACT:

Dr. Durrell Dickens, Dept. Chair
Office Location –
5801 Uvalde Rd.
Office N33.203s
Houston, TX 770049
281-998-6150, x7346
durrell.dickens@sjcd.edu

Amber Tyler, Program Director
281-998-6150, x7373
amber.tyler@sjcd.edu

Emily Choate, Faculty
281-998-6150, x7522
emily.choate@sjcd.edu

Eddie Foster, Faculty
281-998-6150, x7178
eddie.foster@sjcd.edu

Jerry Comeaux, Faculty
281-998-6150, x7340
gerald.comeaux@sjcd.edu

WEBSITE:

<https://publications.sanjac.edu/>

FAST FACTS ABOUT THE PROGRAM

TYPE: TECHNICAL

CAMPUS: NORTH & CENTRAL

Degree/Certificate:

- Stick Pipe Occupational Certificate – 16 credit hours
- Art Welding Occupational Certificate – 16 credit hours
- Combination Welder Certificate of Technology – 24 credit hours
- Gas Shielded Welding Certificate of Technology – 24 credit hours
- Industrial Welder level 2 Certificate – 42 credit hours
- Welding Technology Associate of Applied Science – 60 credit hours

Entry Points:

- Fall, Spring, Summer
- Classes are offered in 5-week, 8-week & 16- week parts of term

Exit Points:

- Upon completion of any individual certificate

Career Opportunities/Earning Potential:

- Welder median salary: \$47,923¹ per year
- Stick pipe: Structure, pipe lines \$15.00 - \$22.00/hour
- Art Welding: Fabrication and machine shops \$15.00 - \$19.00/hour
- Combination Welder: Entry level fabrication shop, structural \$19.00 - \$27.00/hour
- Gas Shielded Welder: Fabrication and machine shops, structural \$19.00 - \$27.00/hour
- Industrial Welder: Fabrication and machine shops, structural \$22.00 - \$39.00/hour
- Associate of Applied Science: Management/foreman, inspections, quality control – after 3 years industry experience \$45,000 - \$100,000/year after 3 years industry experience
- **Graduates begin as a welder helper. \$15.00 - \$22.00/hour. Time to promotion is dependent on certificate level earned.**

Employment Requirements:

- Criminal background check
- Drug screening
- Transportation Worker Identification Credential (TWIC)

Cost of Attendance:

- Tuition (In district) \$78.00 per credit hour
- Tuition (Out of district) \$135.00 per credit hour
- Supplies \$125.00 - \$200.00

Credit by Exam:

Credit by exam is offered for the following classes

- WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)
- WLDG 1437 Introduction to Welding metallurgy (Central Campus)

Scholarship Opportunities:

Scholarships opportunities are available through the North Shore Rotary Club.

College Services:

San Jacinto College works with the Workforce Solutions to provide childcare assistance to students. Please contact Rita Harris North Business & Technology DOC North Campus x7270.

Men, women and the family members of those who have honorably served our country in the military can visit the Veteran Centers for special benefits.

¹ Texaswages.com (<http://texaswages.com>), Gulf Coast region, 2016