

## Enroll in Welding Today

Talk with your counselor and CTE teacher to determine what high school courses you need to take.

### Instructor:

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- \* Tulsa Welding School Graduate
- \* Certified Welder-
  - AWS D1.1
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## GREYHILLS ACADEMY HIGH SCHOOL

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# WELDING TECHNOLOGY



## GREYHILLS ACADEMY HIGH SCHOOL



## Welding Program

Welding is designed to provide students with a basic understanding of welding and metal fabrication procedures. Skill development includes layout and measurement techniques, equipment operation and safety management. Students apply these skills in constructing a variety of projects. In addition to technical skills, students also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for entry into Welding occupations. Advanced students learn tool and equipment maintenance, prototype development and evaluation, industrial management strategies and employability skills. To enhance problem solving and critical thinking skills, students have the opportunity to build a more advanced project utilizing blueprints. Completion of a career plan as well as a competency certificate may lead to employment or college entrance.

Study will be as per the industry recognized SENSE Training Program.

Students will be taught the following processes:

- Shielded Metal Arc Welding- Stick
- Gas Metal Arc Welding- MIG
- Gas Tungsten Arc Welding- TIG
- Oxy-Fuel Gas Cutting
- Flux-Core Arc Welding

Students will be introduced to the following:

- Welding Safety
- How to prepare coupons for Destructive Welding Test
- Project or Job Planning
- Welding Chemistry
- Welding Math (application of algebra, geometry and trigonometry)
- Blue Print Reading
- Welding Symbols
- Layout Techniques
- Pipe Welding

## CAREER OPPORTUNITES

United States continues to have many opportunities in the welding career field. The American Welding Society believes that as welding automation becomes more important there will be an even greater need for welding engineers with a bachelor's degree. Welders work in manufacturing plants, construction sites, utility installations, and repair shops. Two-thirds of all welders are employed in manufacturing plants that produce motor vehicles, ships, boilers, machinery, appliances and other metal products. Other welders work for repair shops or for construction companies that build bridges, large buildings, pipelines, and similar metal structures. Depending on the work site, welders may spend their day inside, outside, or in confined spaces such as tunnels or large storage tanks. There are and always will be many occupations available in the Welding industry.

## STUDENT ORGANIZATIONS

SkillsUSA is a national organization serving high school students enrolled in training programs in technical, skilled, and service occupations. This organization prepares America's high performance workers by providing quality education experiences for students in leadership, teamwork, citizenship and character development. It builds and reinforces self-confidence, work attitudes and communication skills. It also emphasizes total quality at work, high ethical standards, superior work skills, life-long education and pride in the dignity of work. SkillsUSA also promotes understanding of the free enterprise system and involvement in community service activities. Programs include local, state and national competitions in which students demonstrate occupational and leadership skills. SkillsUSA programs also help to establish industry standards for job skill training in the classroom. Visit the website at [www.skillsusa.org](http://www.skillsusa.org).



Official SkillsUSA logo



## SKILLS & KNOWLEDGE

- \* Working with tools and machines
- \* Mechanical aptitude
- \* Working with precision instruments
- \* Manual dexterity
- \* Good hand-eye coordination
- \* Being comfortable with repetitive work



In addition to these specific skills everybody will be performing the following:

- ◆ Reading, Writing, and Arithmetic
- ◆ Speaking & Listening
- ◆ Problem- solving and decision- making
- ◆ Understanding the broader picture
- ◆ Working with people
- ◆ A strong work ethic
- ◆ A positive attitude
- ◆ Independence & initiative
- ◆ Self- presentation