

# WELDING



Welding is the most common method of permanently joining or cutting metal surfaces. In this career, you might set-up, operate or tend welding, soldering or brazing machines. Welders also operate laser cutters or laser-beam machines. Employers report difficulty in finding qualified welders, so let Washburn Tech put you first in line for an in-demand job.

## Learning at Washburn Tech

The program will prepare you to apply technical knowledge and skills when bonding or cutting metal parts. Instruction, both formal and self-paced, includes shielded metal arc welding, gas metal arc welding, flux cored arc welding, gas tungsten arc welding and cutting processes. Emphasis also is placed on quality assurance and control, print reading, safety and workplace skills. Attending full-day, you can complete the program in two semesters, while half-day and high school students can finish in four semesters.

Upon completion, you will earn a 48-credit-hour technical certificate and be eligible to complete an associate degree or more advanced degrees at Washburn University. Evening classes and a Fast-Track option also are available.

## Job and Salary Outlook

Good career opportunities are expected for highly-skilled workers, especially for those trained in the latest technologies. According to the Kansas Department of Labor, the average salary in 2015 for an entry-level welder was \$15.84 an hour or \$32,944 annually. The average salary was \$17.61 an hour or \$36,635 annually.

## Entry Requirements

Students are required to meet the minimum score on an assessment test. Washburn Tech offers the ACT WorkKeys. A score of 4 in both Reading and Math is required. Other assessments or college coursework can be accepted in place of WorkKeys. Please see a recruiter for details. Students also must complete an application and submit an official copy of all transcripts.

## Certifications

- OSHA-10

### CONTACT US:

785.670.2200  
877.588.7140

For more programs, enrollment and course schedule information, please contact Admissions. Financial Aid is available to those who qualify.

Washburn University Institute of Technology

5724 SW Huntoon St., Topeka, Kansas 66604 | 785.670.2200 | [washburntech.edu](http://washburntech.edu)

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## Course Descriptions

**Welding Safety/OSHA-10:** focus on job/site safety and precautions, determine the uses of personal protective equipment (PPE), identify the safety equipment and procedures related to safe work practices and environment, and identify fire prevention and protection techniques

**Print Reading/Math I:** teaches a basic understanding of welder's math and the symbols used on blueprints

**Oxy-Fuel/Cutting Procedures:** includes the cutting of ferrous and non-ferrous materials with manual, motor-driven and oxy-fuel shape cutting equipment; also included, plasma-arc cutting (PAC) and carbon-arc cutting

**SMAW:** explore the shielded metal arc welding (SMAW) process

**SMAW I:** continuation of SMAW

**GMAW:** focuses on gas metal arc welding (GMAW)

**GMAW Welding:** continuation of GMAW; additional positions and tests will provide added experience with gas metal arc welding

**Workplace Skills I:** teaches some of the skills needed to get a job in any field

**Oxy-Fuel Welding:** teaches basic welding and oxy-fuel welding set-up; students learn how to set-up and torch while becoming proficient in the start-up and shut-down procedures

**SMAW II:** designed to teach the student the correct techniques to weld in the vertical up and overhead position

**FCAW Welding:** Flux Cored Arc Welding Unit (FCAW) is designed to teach the student the correct techniques to weld in all positions with an emphasis on safety

**Print Reading/Math II:** designed to teach a basic understanding of blueprints

**Welding Special Topics:** Gas Metal Arc Welding Aluminum (GMAW) unit designed to teach the correct techniques to weld in all positions

**GTAW:** explore the gas tungsten arc welding (GTAW) process

**GTAW I:** continuation of GTAW  
**Workplace Skills II:** includes writing a resume and job search technique

## CHECKLIST

Meet with recruiter

Take ACT WorkKeys\*

Submit transcript(s)

Pay enrollment fee

\*some exceptions apply

## TOTAL 2017-2018 PROGRAM COSTS (ESTIMATED) - HIGH SCHOOL

Enrollment fee	\$20
Tuition	FREE
All other fees	\$1,439
<b>TOTAL</b>	<b>\$1,459</b>

## ADDITIONAL ESTIMATED CHARGES

Tools/Books Estimate*	\$470
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## TOTAL 2017-2018 PROGRAM COSTS (ESTIMATED) - ADULT

Enrollment fee	\$50
Tuition	\$6,048
All other fees	\$1,439
<b>TOTAL</b>	<b>\$7,537</b>

## ADDITIONAL ESTIMATED CHARGES

Tools/Books Estimate*	\$470
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\* A list of required tools/books is on a separate sheet of paper and on our website, WashburnTech.edu. Students also will need to purchase supplies such as (but not limited to) pens/pencils, notebooks/paper, three-ring binder, etc. Students may purchase them at the vendor of their choice.