

Your choice of individual classes or the complete 16-credit Certificate Program

# Welding

Welding is a critical skill in high demand. With a Welding Certificate from South Central College, you're on your way to a skilled trade career in manufacturing, commercial construction, mining, agriculture, and repair and maintenance.

The future looks promising for welding. It is and will continue to be a productive, cost-effective manufacturing process. Advanced technology is creating more uses for welding in the workplace and expanding employment opportunities.

The Welding Program at South Central College is designed to help you quickly develop technical knowledge and hands-on skills for a high-demand job. You have the option to complete the full 16-credit program or take any individual class through the Center for Business and Industry ([cbi.southcentral.edu/enroll](http://cbi.southcentral.edu/enroll)). With these options, novices and advanced-level students can benefit from the program.

## Occupational Outlook

The Bureau of Labor Statistics reports that prospects should be good for welders trained in the latest technologies. Many employers report difficulty finding qualified applicants and wages continue to climb. In addition, other openings will arise as workers retire, creating a need for skilled and experienced workers to replace them.

**Employment Outlook for Welders, Cutters, Solderers, and Brazers**

	Employment		Employment Change	
	2010	2020	Number	%
U.S.	337,300	388,000	50,700	15%
Minnesota	7,814	9,224	1,410	18%
Southeast Minnesota	827	997	170	20.6%

Source: Minnesota Department of Employment and Economic Development and Minnesota Department of Education.

### For more information:

[www.southcentral.edu](http://www.southcentral.edu)

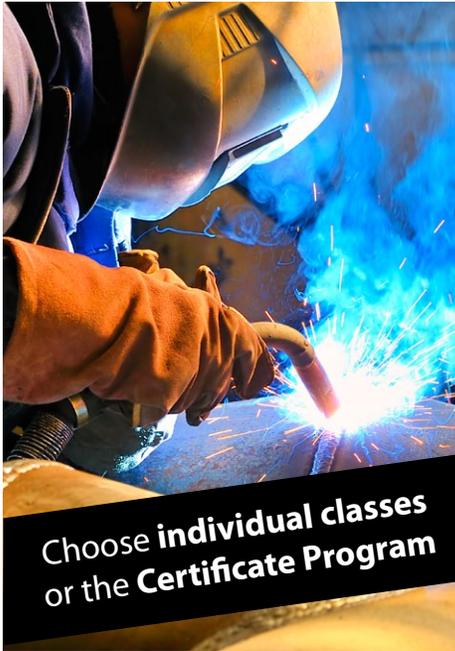
507-389-7200

[admissions@southcentral.edu](mailto:admissions@southcentral.edu)



South Central  
College

# Welding Certificate



## Certificate Description

This program helps you acquire the skills needed for welding in construction, fabrication, plant maintenance settings and more. Included in the 16-credit program is a 10-hour OSHA approved safety orientation and using industry-standard tools to cut and separate metal. Lab time is used to practice welding plate metal, carbon steel plates, aluminum, and stainless steel; as well as making precision cuts in steel plates and pipe using superheated gasses.

## Offered on the Faribault Campus

Take the entire program or enroll in any individual class.  
Enroll today at [www.southcentral.edu](http://www.southcentral.edu)

### For more information:

[www.southcentral.edu](http://www.southcentral.edu)  
507-389-7200  
[admissions@southcentral.edu](mailto:admissions@southcentral.edu)

Evening classes offered. If other times are needed, future classes can be arranged.

## Welding Certificate (16 Credits)

### Gas Metal Arc Welding (GMAW)

3 credits

#1035 Introduction to Gas Metal Arc Welding (2 credit) and  
#1036 Gas Metal Arc Welding II (1 credit)

These courses will introduce and reinforce concepts related to Gas Metal Arc Welding process, including circuits, globular, spray arcs, pulsed spray arc, and effects of shielding gasses. This course will prepare you for American Welding Society D1.1 certification.

### Blue Print Reading for Welding

2 credits

#1005 Blue Print Reading (1 credit) and  
#1006 Blue Print Reading for Welding (1 credit)

Learn the skills to read, understand, and interpret welding symbols, charts, and measurements to work more closely with blueprints in general and specific to Welding.

### OSHA 10-Hour and Welding Safety

2 credits

#1010 OSHA 10-Hour & Welding Safety (1 credit) and  
#1011 OSHA 10-Hour & Welding Safety II (1 credit)

Learn how to identify, abate, avoid, and prevent job related hazards on a job site. This training covers a variety of industry safety and health hazards including machine guarding, bloodborne pathogens, safety programs, health programs, and welding safety.

### Shielded Metal Arc Welding (SMAW)

3 credits

#1025 Introduction to Shielded Metal Arc Welding (2 credit) and  
#1026 Shield Metal Arc Welding II (1 credit)

Learn Shielded Metal Arc Welding on carbon steel in various positions along with electrodes: types, selection, and discussion of power sources. Duty cycle, cable sizing, arc blow are expanded upon and advantages, limitations, vertical up and vertical down are explored. This course will prepare you for American Welding Society D1.1 Certification.

### Gas Tungsten Arc Welding (GTAW)

3 credits

#1045 Introduction to Gas Tungsten Arc Welding (3 credits)

Learn the fundamentals of GTAW for steel, stainless steel and aluminum. The training covers edge, corner, lap, and fillet welds in all plate, pipe or other irregular shapes.

### Oxy-Fuel Welding and Cutting

3 credits

#1055 Introduction to Oxy-Fuel Welding and Cutting (3 credits)

An introduction to oxy-fuel welding and cutting, safety, setup and the maintenance of equipment and supplies. This course will demonstrate oxy-fuel welding and cutting safety procedures, identify and classify fuels and filler metals, perform entry-level oxy-fuel welding and cutting operations. A study of all position welding on ferrous and nonferrous metals, using welding and cutting, brazing, and soldering operations.