

# Welding Technology CERTIFICATE

## Program Overview

Welding is a common method for joining two pieces of metal together. This is a skill that is required throughout manufacturing and the construction trades. Entry level welders are required to be experienced in common welding methods and set-up procedures. Additionally, they will need to read blueprint drawings to create product, use various measuring devices efficiently, and be able to identify various metals that may be welded on.

Physical Requirements include good eyesight, good hand and eye coordination and the ability to perform heavy, physical work.

## Career Opportunities

According to the U.S. Department of Labor, it is projected within the next 10 years to see a 15% growth rate, adding 50,000 new jobs.

In manufacturing, welders are needed in Aerospace, Structural, Precision Sheet Metal, Architectural, and many other industries. Welders are also needed in various construction trades: such as Pipefitting, Sheet Metal, Ironworker, and others.

## Program Outcomes

1. Identify correct welding techniques for multiple processes.
2. Follow safety requirements in set-up, operation, and break down of metal shop equipment.
3. Produce weldments to AWS/Industry standards for multiple processes.
4. Analyze the quality of welds to determine if proper techniques/settings are being used.
5. Use blueprints and measuring devices to aid in welding.

## Transfer Opportunities

Saint Paul College has a transfer articulation agreement between the following program and post-secondary institution for the baccalaureate degree program listed below.

For more information please go to [saintpaul.edu/Transfer](http://saintpaul.edu/Transfer).

### Welding Technology Diploma

BS Operations Management  
Minnesota State University, Moorhead

## Program Faculty

- Todd Hankel  
todd.hankel@saintpaul.edu
- Caleb Paulson  
caleb.paulson@saintpaul.edu
- Riley Pease  
riley.pease@saintpaul.edu

### Supply costs

Estimated cost for student supplies \$250.

## Program Requirements

Check off when completed

Certain classes must be taken concurrently and certain classes are prerequisites to other classes.

Course	Cr
<input type="checkbox"/> WLDG 1402 Industrial Shop Practices 1	4
<input type="checkbox"/> WLDG 1410 Welding Basics	2
<input type="checkbox"/> WLDG 1420 SMAW: E6010	2
<input type="checkbox"/> WLDG 1431 SMAW: E7018	2
<input type="checkbox"/> WLDG 1441 GMAW: Short Arc	3
<input type="checkbox"/> WLDG 1450 Intro to Blueprint/Measuring Devices	3

**Total Program Credits . . . . . 16**

## Program Start Dates

Fall, Spring

## Course Sequence

The following sequence is recommended for a full-time student.

### First Semester

WLDG 1402 Industrial Shop Practices 1	4
WLDG 1410 Welding Basics	2
WLDG 1420 SMAW: E6010	2
WLDG 1431 SMAW: E7018	2
WLDG 1441 GMAW: Short Arc	3
WLDG 1450 Intro to Blueprint/Measuring Devices	3
<b>Total Semester Credits</b>	<b>16</b>

**Total Program Credits . . . . . 16**

### Minimum Program Entry Requirements

Students entering this program must meet the following minimum program entry requirements:

**Reading:** Score of 240+ or grade of "C" or better in READ 0721

**Writing:** Score of 225+

**Arithmetic:** Score of 237+

### Assessment Results and Prerequisites:

Students admitted into Saint Paul College programs may need to complete additional courses based on assessment results and course prerequisite requirements. Certain MATH, READ, and ENGL courses have additional prerequisites.

312C

*Information is subject to change.  
This Program Requirements Guide is not a contract.*