

# INDUSTRIAL WELDING TECHNOLOGY-TIG OPTION/ SMAW

## Certificate

<http://www.sandburg.edu/Academics/Degree-Certificates/Welding-TIG-Option-Gas-Metal-Arc/index.html>

This two-semester program is designed to provide the graduate with skills needed to enter employment in local industry as an entry-level welding supervisor for construction firms, agricultural enterprises, and heavy machine fabrication. This certificate program is designed to provide students a hands-on welding certificate that emphasizes training and the mastery of welding techniques specializing in TIG-Gas Metal Arc welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All the courses contain essential components required for success in industry today such as mathematics, communication, attendance, and productivity.

### Long-term Benefits:

- Increased labor pool to replace retiring workers
- Increased selection for new hires
- Overall increased quality of work force
- Overall increased quality of manufacturing in western Illinois
- Increased technical expertise of existing work force

### Admission to the Program: Open First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam.
4. Meet with an advisor/counselor to select classes and complete the registration process.

### Department of Career & Corporate Development

2400 Tom L. Wilson Blvd.  
Galesburg, IL 61401  
Phone: 309.341.5461

### For Additional Information Contact:

The Welcome Center  
Phone: 309.345.3500  
[welcomecenter@sandburg.edu](mailto:welcomecenter@sandburg.edu)

### For Graduation Requirements:

See the graduation policies and procedures ([http://catalog.sandburg.edu/academicinformation/#graduation\\_policies\\_and\\_procedures](http://catalog.sandburg.edu/academicinformation/#graduation_policies_and_procedures)) page for details.

MFG.100	Introduction to Welding	3
WEL.125	Welding Blueprints	2
WEL.160	Oxyacetylene Welding & Metal Preparation	3
WEL.162	Arc Welding Basics	3
<b>Spring Semester</b>		
MAT.102	Technical Mathematics 2	3
MFG.125	Industrial Blueprints	3
MFG.130	Industrial Safety	2
WEL.164	Arc Welding Advanced	3
WEL.166	Gas Shielded Arc Tig	3
Total Semester Hours		30

### Christopher N. Banker

Dean of Career and Corporate Development

The Center for Manufacturing Excellence (CME) offers classroom space, a computer lab, and houses Carl Sandburg College's industrial programs. Students may take courses in the following subject areas: welding, Computer Numerical Control Machining (CNC), biofuels, rail, machine tool, manufacturing or electrical. The electrical lab features a host of components to aid in student learning including AC/DC trainers. In 2014, Sandburg became a designated National Academy of Railroad Sciences (NARS) training site offering courses in locomotive electrical and locomotive mechanical. Instruction is delivered by individuals with industry-specific expertise and includes specialized coursework using technical equipment. Two diesel engines inside the CME are available for training opportunities. The College's weld lab offers 26 bay stations. The welding area offers two welding simulators, as well as state of the art multi process welding machines. The CNC Program offers training in programming, setup, and operations while housing multiple lathe, mills, and CNC Machines as well as simulators to properly train students for a career in the machining industry.

Course	Title	Semester Hours
<b>First Year</b>		
<b>Fall Semester</b>		
MAT.101	Technical Mathematics 1	3
MET.100	Metallurgy Fundamentals	2