

# INDUSTRIAL WELDING TECHNOLOGY-MIG OPTION/ GMAW

## Certificate

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

This two-semester certificate is designed to provide the graduate with skills needed to enter employment in local industry with skills and knowledge that emphasizes training and the entry-level competence for MIG welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All of the courses contain essential components required for success in the industry today such as mathematics, communication, attendance, and productivity.

### Long-term Benefits:

1. Increased labor pool to replace retiring workers
2. Increased selection for new hires
3. Overall increased quality of work force
4. Overall increased quality of manufacturing in western Illinois
5. 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.

Course	Title	Semester Hours
<b>First Year</b>		
<b>Fall Semester</b>		
MAT.101	Technical Mathematics 1	3
MET.100	Metallurgy Fundamentals	2
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
<b>Second Year</b>		
<b>Fall Semester</b>		
ELT.100	Electrical Fundamentals	3
MTL.103	Manufacturing Processes	2
TQM.101	Total Quality Management	2
WEL.168	Gas Shielded Arc Mig	3
WEL.170	Applications of GMAW & FCAW	3
SPE.110	Interpersonal Communication	3
	or SPE.120 or Introduction to Public Speaking	
Total Semester Hours		46

### 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.