

About JJC

Joliet Junior College, the nation's first public community college, is the college of choice for life-changing learning opportunities. For more than 100 years, JJC has been an institution of affordable, accessible and quality education, enriching lives through high quality programs and services. JJC is a place to grow as a person, to share in a community of learning, and to be inspired by new ideas. With an average class size of 17, JJC students experience a stimulating learning environment where they are taught by the best. JJC has the second most full-time instructors for community colleges in Illinois, and more than 80 percent of professors have a master's degree or higher.

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Industrial Welding Technology

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Those successfully completing coursework in JJC's Industrial Welding Technology program will be prepared for the on-the-job challenges facing them in this evolving career area. In addition to a wide range of up-to-date welding courses, students also will be equipped with knowledge they receive in math, English, and blueprint reading courses, all skills that are critical to those pursuing a career in welding. Also, class schedules are planned so that students can attend classes at their convenience, even if currently employed.

For the most up-to-date information about the Industrial Welding Technology program at JJC, visit www.jjc.edu/info/welding.



Industrial Welding Technology

JJC's Industrial Welding Technology program is designed to prepare students for high-demand occupations in the industrial welding sector. Students have the opportunity to design a course of study to prepare them for occupations in the maintenance, structural or pipe welding (at the certification level) fields. JJC graduates of this program are equipped with skills required in many trades and are prepared to obtain an apprenticeship with many of the skilled crafts groups such as the pipefitters, ironworkers, boiler makers and others.

Abundant career opportunities, throughout the college's district, exist for skilled welders and multi-craft maintenance technicians with a degree or certificate from JJC. Welding technologies and skills are in high demand across a number of industry sectors that include machine tool, industrial maintenance, construction and automotive.

Associate in Applied Science (AAS)

Industrial Welding Technology

Certificate of Achievement (CAC)

Welding and Metal Fabrication



Fast Fact

Coursework is offered at convenient class times at the new state-of-the-art welding facility located on the Main Campus and a number of satellite locations.



Career Outlook

Employment statistics show continued steady growth for those employed as welders. Retirements and job growth in the oil and gas and other industries are expected to create excellent opportunities for welders. Welding graduates typically have little trouble finding work, and some welding employers report difficulty finding trained welders. The basic skills of welding are the same across industries, which means welders can easily shift from one industry to another, depending on where the demand is the highest. Job prospects are best for those trained in the latest technologies, such as those completing coursework in JJC's Industrial Welding Technology program.

Industrial Welding Technology

Associate in Applied Science (AAS)

General Education Requirements 15.0

Must include the following:

ENG 130	Technical Writing and Communications	3.0
Or		
ENG 101	Rhetoric	3.0
CIS 124	Beginning Microcomputer Applications	3.0
Or		
CIS 126	Microsoft Office	3.0
*MATH 107	Technical Mathematics I	3.0
**MATH 108	Technical Mathematics II	3.0

Social Science Elective

Note: *, ** may be replaced with a higher-level math.

Major Core Requirements 31.5

WELD 114	Arc Welding I (Beginning)	1.5
WELD 115	Arc Welding II (Flat and Horizontal)	1.5
WELD 116	Arc Welding III (Vertical)	1.5
WELD 127	Shielded Metal Arc Welding IV (Overhead)	1.5
WELD 121	Oxygen Acetylene Welding I (Cutting)	1.5
WELD 122	Oxygen Acetylene Welding II (Brace Weld/Brazing)	1.5
WELD 131	Welding (Heliarc) I (Mild Steel)	1.5
WELD 132	Welding (Heliarc) II (Aluminum)	1.5
WELD 133	Welding (Heliarc) III (Stainless Steel)	1.5
WELD 141	Gas Metal Arc Welding (MIG)	1.5
WELD 142	Flux Cored Arc Welding	1.5
MFG 101	Precision Machine Tool Technology I	4.0
MFG 115	Blueprint Reading for Welding and Metalworking	3.0
MFG 120	Physical Metallurgy	3.0
MFG 130	Introduction to Non-Destructive Testing	2.0
MGMT 103	Occupational Safety and Health	3.0

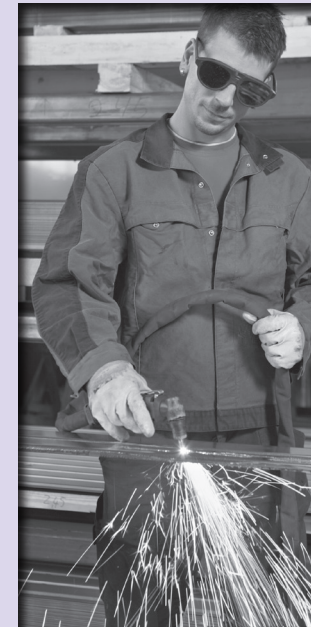
Department Electives 18.0

(18 semester hours from any course listed below and/or any course in IMT, EEAS, MFG, HVAC, CADD-selected with adviser/coordinator approval)

Suggested Electives:

WELD 118	Pipe Welding I (Horizontal-Fixed Position)	1.5
WELD 119	Pipe Welding II (Horizontal Position)	1.5
WELD 120	Pipe Welding III (Vertical Position)	1.5
WELD 130	Pipe Welding IV (45 Fixed Position)	1.5
WELD 123	Oxygen Acetylene Welding III	1.5
WELD 124	Oxygen Acetylene Welding IV	1.5
WELD 128	Arc Welding VI (Advanced Overhead)	1.5
WELD 134	Welding (Heliarc) IV (Individual Problems)	1.5
WELD 218	Industrial Pipe Fabrication and Layout	3.0

Total Required Hours 64.5



About the Field

Many welders belong to unions. These include: International Association of Machinists and Aerospace Workers; the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers; the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America; the United Association of Journeymen and Apprentices of the Plumbing, Pipefitting, Sprinkler Fitting Industry of the United States and Canada; and the United Electrical, Radio, and Machine Workers of America.

Welding and Metal Fabrication

Certificate of Achievement (CAC)

General Education Requirements 6.0

ENG 101	Rhetoric	3.0
Or		
ENG 130	Technical Writing and Communications	3.0
Or		
SPCH 101	Principles of Speech	3.0
MATH 107	Technical Mathematics I	3.0

Major Core Requirements 24.0

MFG 115	Blueprint Reading for Manufacturing and Welding	3.0
MGMT 103	Occupational Safety and Health	3.0
WELD 114	Arc Welding I (Beginning)	1.5
WELD 115	Arc Welding II (Flat and Horizontal)	1.5
WELD 116	Arc Welding III (Vertical)	1.5
WELD 117	Arc Welding IV (Advanced Vertical)	1.5
WELD 118	Pipe Welding I (Horizontal-Fixed Position)	1.5
WELD 119	Pipe Welding II (Horizontal Position)	1.5
WELD 120	Pipe Welding III (Vertical Position)	1.5
WELD 121	Oxygen Acetylene Welding I (Cutting)	1.5
WELD 122	Oxygen Acetylene Welding II	1.5
WELD 123	Oxygen Acetylene Welding III	1.5
WELD 131	Welding (Heliarc) I (Mild Steel)	1.5
WELD 141	Gas Metal Arc Welding (MIG)	1.5

Total Required Hours 30.0

Note: The following electives may be substituted for other welding courses.

WELD 124	Oxygen Acetylene Welding IV	1.5
WELD 127	Arc Welding V (Overhead)	1.5
WELD 128	Arc Welding VI (Advanced Overhead)	1.5
WELD 130	Pipe Welding IV (45 Fixed Position)	1.5
WELD 132	Welding (Heliarc) II (Aluminum)	1.5
WELD 133	Welding (Heliarc) III (Stainless Steel)	1.5
WELD 134	Welding (Heliarc) IV (Individual Problems)	1.5