

Program Overview

The Welding program will provide you with the skills and knowledge identified by the American Welding Society Skill Standards. You will be taught welding skills and theory, fabrication, layout, print reading, welding symbols, math, and welding codes.

Offered at:

New Richmond
Rice Lake
Superior



Student Profile

As a Welding student, you should be able to:

- Use independent judgment
- Visualize objects from drawings
- Organize work rapidly and perform repetitive tasks
- Follow procedures carefully
- Stand for long periods
- Work in an industrial setting
- Enjoy working with your hands
- Work well under pressure
- Work with or without direct supervision

Preparation for Admission

The following experiences will help you prepare for this program:

- Communications
- Drafting and Design
- Basic Math
- General Metals
- Machine Shop
- Welding
- Principles of Technology

Program Outcomes

Employers will expect you, as a Welding graduate, to be able to:

- Join metals using various welding processes.
- Read prints and interpret welding symbols.
- Determine the quality of welds.
- Work safely.
- Use layout tools and measuring devices.
- Apply welding principles and practices to maintenance and fabrication applications.
- Utilize computerized equipment for welding and cutting.
- Communicate with fellow workers, employees, and consumers in the welding industry.

Career Outlook

Almost 60 percent of the gross national product involves welding. The demand for welders continues to be very strong. After graduating from the Welding program, you will be ready to start your career as a:

- Production Welder
- Construction Welder
- Maintenance Welder
- Welder/Fitter
- Welder Helper
- Welding Machine Operator
- Flame Cutter/Machine Operator

Curriculum

Number	Course Title	Credits
Occupational Specific Courses		
31442321	Print Reading - Welding Trades	2
31442325	Welding Fabrication/Production (WBL) ▲	3
31442370	Gas Metal Arc Welding 1	3
31442371	Gas Metal Arc Welding 2	2
31442372	Gas Metal Arc Welding 3	1
31442373	Shielded Metal Arc Welding 1	3
31442374	Shielded Metal Arc Welding 2	2
31442375	Shielded Metal Arc Welding 3	2
31442376	OAC/PAC/AAC Cutting	2
31442377	Flux Cored Arc Welding 1	2
31442378	Flux Cored Arc Welding 2	2
31442379	Gas Tungsten Arc Welding 1	2
31442380	Gas Tungsten Arc Welding 2	2
		<u>28</u>
Occupational Supportive/General Studies Courses		
32801361	Applied Communications 1	2
32804373	Math 373	2
32809371	Applied Human Relations	2
		<u>6</u>

PROGRAM REQUIREMENTS **34**

▲ This course requires a prerequisite and/or corequisite, and must be completed with a grade of "C-" or better.

Course Descriptions

31442321

Print Reading - Welding Trades - Credits: 2

Orthographic projection, sketching, dimensioning, section and auxiliary views, structural shape identification, weld symbols, welding symbol nomenclature, welded joint geometry, metric conversion, and interpretation of fabrications from prints.

31442325

Welding Fabrication/Production (WBL) - Credits: 3

This course introduces the student to the basics of metal fabrication including the use of layout tools and principles, and blueprint interpretation. Also, weldment fit-up, tacking, distortion, and flame straightening are covered. The use of shears, drilling, taping, painting, and CNC cutting equipment for fabrication purposes is also covered. PREREQUISITES: 31442321 Print Reading - Welding Trades, 31442370 Gas Metal Arc Welding 1, 31442373 Shielded Metal Arc Welding 1, 31442374 Shielded Metal Arc Welding 2, 31442376 OAC/PAC/AAC Cutting, and COREQUISITE: 31442375 Shielded Metal Arc Welding 3.

31442370

Gas Metal Arc Welding 1 - Credits: 3

This course introduces the student to the basics of GMAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442371

Gas Metal Arc Welding 2 - Credits: 2

This course introduces the student to the next level of GMAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442372

Gas Metal Arc Welding 3 - Credits: 1

This course introduces the student to an advanced level of GMAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442373

Shielded Metal Arc Welding 1 - Credits: 3

This course introduces the student to the basics of SMAW welding. It includes the study of the type of metals and equipment utilized when welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard welding techniques.

31442374

Shielded Metal Arc Welding 2 - Credits: 2

This course introduces the student to the next level of SMAW welding. It includes the study of the type of metals and equipment utilized when welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard welding techniques.

31442375

Shielded Metal Arc Welding 3 - Credits: 2

This course introduces the student to an advanced level of SMAW welding. It includes the study of the type of metals and equipment utilized in SMAW welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard welding techniques.

31442376

OAC/PAC/AAC Cutting - Credits: 2

This course introduces the student to the basics of cutting and gouging operations. It includes the study of the common processes, techniques, and equipment utilized when cutting and gouging. The instruction emphasizes accepted applications in the use of carbon steel, stainless steel, and aluminum.

31442377

Flux Cored Arc Welding 1 - Credits: 2

This course introduces the student to the basics of FCAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442378

Flux Cored Arc Welding 2 - Credits: 2

This course introduces the student to the next level of FCAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442379

Gas Tungsten Arc Welding 1 - Credits: 2

This course introduces the student to the basics of GTAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442380

Gas Tungsten Arc Welding 2 - Credits: 2

This course introduces the student to the next level of GTAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing the standard industry techniques.

Graduate Employment Information

(WITC Graduate Survey Responses 2005-2006)

Number of graduates	40	Number employed	34	% employed in WITC district	63%
Number of responses	37	Percent employed	94%	Range of yearly salary	\$22,878-\$49,167
Number available for employment	36	Employed in related field	32	Average yearly salary	\$32,383

career vision