

Program Information

The Robotic and laser Welding program will focus on robot and laser safety, programming, and operation. The Robotic and Laser Welding certificate will train students in the fundamentals of ABB, Fanuc and OTC robot programming and language. Laser welding will include the development and documentation of procedures and qualification of welds, and the calibration of equipment for welding. Laser cutting will focus on creating programs using CNC laser cutting equipment.

Program Learning Outcomes

By completing this program, students will achieve the following learning outcomes.

1. Demonstrate ability to operate robots and lasers safely.
2. Program robotic arc welders.
3. Develop weld schedules and edit weld programs.
4. Program and cut parts using CNC laser cutting equipment.
5. Develop laser welding and programs.
6. Document results of weld procedure and qualifications tests.

Certifications

The Welding program not only provides students with a thorough background in welding and related theory, but also prepares students with the knowledge and skills need to take a national certification examination.

- American Welding Society (AWS) Certified Robotic Welding Certification (CRAW)

Admission Requirements

Must successfully completed the Welding Technology diploma.

Course Prerequisites

Successfully completed WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034, and WELD 1036.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certificate must meet the cumulative grade point average (GPA) of 2.0 or higher.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Robotic and laser welding is expected to grow at a substantial rate in the coming years. Contributing factors to this growth includes demand for greater safety, improve productivity, and quality. With the combination of robotics and lasers, companies see an increased manufacturing speed, affordable materials, and better rates for their clients. This growing field will expand in many different areas including but not limited to automotive plants, machine shops, and global market.

Wages/Outlook/Advancement

Wage information is available from the Minnesota Department of Education and [Minnesota Department of Employment and Economic Development](http://www.mn.gov/deed/job-seekers/job-outlook/) (https://mn.gov/deed/job-seekers/job-outlook/).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 18 Credits

- WELD 2006 Welding Code Interpretation..... 2
- WELD 2100 Laser Cutting 2
- WELD 2110 Laser Welding 4
- WELD 2120 Welding Procedures 1
- WELD 2130 Fanuc Robotics 3
- WELD 2140 ABB Robotics 3
- WELD 2150 OTC Robotics 3

Also see: Welding AAS, Welding Technology diploma, Basic Welding certificate, Fabricator certificate, and Pipe Welding certificate

Start Dates

Spring Semester January

Faculty Contact

[Jay Gerdin](#) 763-576-4055
 For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence

The Pipe Welding certificate is designed to be completed in one semester.

Spring Semester	
1 st YEAR	WELD 2006 2
	WELD 2100 2
	WELD 2110 4
	WELD 2120 1
	WELD 2130 3
	WELD 2140 3
	WELD 2150 3
	TOTAL 18



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