2021-2022

Robotic and Laser Welding

Certificate

Total Technical Credits.....18

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.

This program requires students to go full-time each semester students are required to take all courses.

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

Successfully complete the Basic Welding certificate or Instructor approval.

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
- Anoka Technical College transfer student

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.

Start Dates

Fall Semester.....August
Spring Semester.....January

Program Sequence

First Semester 18

☐ 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

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

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

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