

Program Information

The Anoka Technical College Associate of Applied Science (AAS) degree in Welding is a 66-credit program designed for individuals seeking a well-rounded welding background. The Welding program consists of technical courses, specifically designed to develop exceptional welding skills utilizing the major welding processes that are vital to industry.

The technical courses are broken out into semester-long certificates to provide quick access into a welding career. The degree program also offers a balance of general education courses to complement the welding courses and to provide students with opportunity to capitalize on a broad-based welding education.

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

Program Learning Outcomes

- Students will weld to visual acceptance criteria per applicable American Welding Society standards in Gas Tungsten Arc Welding, Gas Metal Arc Welding and the Shielded Metal Arc Welding process.
- Students will prepare weld joints and perform welding operations using welding symbol information.
- Students will follow established procedures and policies regarding personal protective gear, shop safety and welding equipment.
- Students will visually examine all work for discontinuities and defects with the knowledge of industry specification.
- Students will work in a team environment and accept constructive criticism.
- Students will operate safely and proficiently using Oxy-fuel,
 Plasma and Carbon Air Arc equipment.
- Students will demonstrate the ability to weld to entry level standard per American Welding Society on carbon steel, stainless steel, and aluminum.

Industry and Career Outlook

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world's oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and strive for excellence. A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied to the pieces that are being joined, melting and fusing them together which forms a permanent bond. Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wage information is available from the Minnesota Department of Employment and Economic Development.

Certification

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 needed to take three national certification examinations:

- American Society of Mechanical Engineers;
- American Petroleum Institute; and
- American Welding Society's Welding Code

Program Start Dates

Fall Semester	August
Spring Semester	January

Course Prerequisites

Some courses in this program may require a prerequisite. Please see <u>course descriptions</u> for more details.

MnTC General Education Requirement

This program requires completion of the following fifteen credits of general education from at least three goal areas of the Minnesota Transfer Curriculum (MnTC). Refer to the MnTC course list for elective courses:

□ MATH 1500	Mathematical Ideas (Goal 4)	3
☐ MnTC Electiv	/es	12

Program Sequence

First Semester	(Basic Welding Certificate) 17
□ WELD 1002	Math for Welders1
□ WELD 1004	Oxy-Fuel Applications1
□ WELD 1006	Oxy-Fuel Processes1
□ WELD 1008	Blueprint Reading I2
□ WELD 1012	Processes and Power Sources I3
□ WELD 1014	Gas Tungsten Arc Welding I
□ WELD 1016	Gas Metal Arc Welding I3
□ WELD 1018	Shielded Metal Arc Welding I
Second Semeste	er (Welding Technology Diploma)17
□ WELD 1022	Blueprint Reading II
□ WELD 1024	Metals Theory I2
□ WELD 1026	Processes and Power Source II3
□ WELD 1028	Gas Tungsten Arc Welding II3
□ WELD 1034	Gas Metal Arc Welding II3
□ WELD 1036	Shielded Metal Arc Welding II3
Third Semester	(Welding Fabricator Certificate)17
□ WELD 1209	Basic Pipe Welding5
□ WELD 2000	Basic Pipe Layout3
□ WELD 2004	Metals Theory II3
□ WELD 2006	Welding Code Interpretation2
□ WELD 2008	Blueprint Reading III4
Fourth Semeste	er15
□ MATH 1500	Mathematical Ideas
☐ MnTC Electiv	ves



2023-2024

Welding

Associate of Applied Science (AAS) Degree

Graduation Requirements

Students must earn a cumulative 2.0 GPA or higher to be eligible for graduation from this program.

Faculty Contact

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

