



AOS DEGREE - CODE #0666

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This high-tech program focuses on welding processes performed in all positions on both plate and pipe. You will learn proper safety methods, required math, related skills, layout and fit up, welding codes and standards, welding inspection, testing, and drawing/welding symbol interpretation.

The first year, students will complete AWS Level I standards for an entry-level welder. The second year will take students toward AWS Level II - advanced welder and expert welder. Additional techniques such as high-pressure vessel and high-pressure pipe will be taught, as well as other advanced welding techniques.

ADVANTAGES

The welding technology program is taught according to the standards set by the American Welders Society (AWS) and is AWS-certified.

DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAM

Alfred State welding technology graduates may enter directly into the technology management BBA degree program. Graduates who have credit for freshman composition, statistics, literature, history, and speech may complete the BBA program in two additional years; others may complete the BBA program in two-and-one-half years.

OCCUPATIONAL OPPORTUNITIES

- Industrial welder
- Steel construction
- Equipment repair
- Self-employment
- Fabrication welder
- Structural welder

EMPLOYMENT STATISTICS

Employment and continuing education rate of 100 percent – 83 percent are employed; 17 percent continued their education.

RELATED PROGRAMS

- [Autobody Repair](#)
- [CNC Manufacturing and Machining](#)
- [Heating, Ventilation, and Air Conditioning](#)
- [Mechanical Engineering Technology](#)

REQUIRED TOOLS/EQUIPMENT

A list of required tools, equipment, PPE, etc. for all of the programs mentioned above can be found at <http://www.alfredstate.edu/tool-lists>.

A tier 1 laptop computer is required for students entering this degree program. Laptop specifications are available at www.alfredstate.edu/required-laptops.

ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Recommended: In-depth knowledge of basic math skills.

OFFICE OF ACCESSIBILITY SERVICES

Students who believe they need a reasonable accommodation to properly participate in this program may contact Melanie Ryan in the

Office of Accessibility Services. This office may be contacted by email at oas@alfredstate.edu or by phone at 607-587-4506. Please keep in mind that some accommodations may take time to implement, so students seeking accommodations are encouraged to contact OAS as early as possible.

TECHNICAL STANDARDS

Applicants for the welding program must meet the following physical requirements:

- Must be able to perform safely in the shop.
- Must be able to lift 50 pounds to eye level.
- Must be able to communicate orally with a person 6 to 10 feet away in a shop environment.
- Must be able to diagnose mechanical failures that are distinguished audibly.
- Must be able to understand and retain information found in service repair manuals and use diagnostic flow charts.
- Must be able to visually read an LCD display on welding equipment.
- Must have the dexterity and mobility to weld in all the welding positions to meet all requirements.
- Good eyesight is recommended.
- Must be able to stand for long periods of time.

WELDING - AOS DEGREE

TYPICAL FOUR-SEMESTER PROGRAM

First			
WELD	1105	Int Shlded Metl Arc Weld (SMAW)	5
WELD	1205	Shielded Metal Arc Weld I	5
WELD	1715	Gas Weld, Cutting & Plasma Cut	5
WELD	1733	Blueprint Readng,Insp & Test	3
			18
Second			
WELD	2715	Shld Mtl Arc & Flx Crd Arc Wld	5
WELD	2725	Gas Metal Arc Welding I	5
WELD	2735	Gas Tungsten Arc Welding I	5
WELD	1723	Welders Calculations I	3
			18
Third			
WELD	3005	Shielded Metal Arc Welding II	5
WELD	3015	GMAW II, FCAW II	5
WELD	3025	Gas Tungsten Arc Welding II	5
WELD	3813	Mettlgy, Codes, Certs & Inspect	3
			18
Fourth			
WELD	4425	GMAW III & GTAW IV	5
WELD	4435	Gas Tungsten Arc Welding III	5
WELD	4445	Welding Fabrication	5
WELD	4013	Senior Project	3
			18

GRADUATION REQUIREMENTS

A student must successfully complete all courses in the prescribed four-semester program and earn a minimum cumulative index of 2.0, which is equivalent to a "C" average. Students are required to earn a grade of "C" or higher in WELD 1723 to be eligible for graduation. (Articulation is available in this area.)

A "C" or higher must also be received for WELD 4013.