

Welding AOT Degree

Available: Shoals Campus
 Advisors: W. Garner (5254) wgarner@nwsc.edu
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Students desiring to receive the AOT Award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Core Degree Requirements for the Associate in Occupational Technology Degree

Entering students are required to complete ORT 100.
 Transfer students are exempt from this requirement.

	Semester Hours
Area I: Written Composition	3
English Composition I and/or Technical Writing	
Area II: Humanities and Fine Arts	3
Area III: Natural Science and Mathematics	9
A minimum of 3 hours in degree creditable mathematics is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, biology, chemistry, physical science, physics, environmental technology and computer science.	
Area IV: History, Social and Behavioral Sciences	3
Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.	

Minimum General Requirements 18

Major Requirements	Semester Hours
WDT 108 SMAW Fillet/OFC	3
WDT 109 SMAW Fillet/CAC	3
WDT 110 Industrial Blueprint Reading	3
WDT 115 GTAW Carbon Pipe Theory	3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory	3
WDT 120 Shielded Metal Arc Welding Groove Theory	3
WDT 122 SMAW Fillet/OFC Lab	3
WDT 123 SMAW Fillet/PAC/CAC Lab	3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab	3
WDT 125 Shielded Metal Arc Welding Groove Lab	3
WDT 155 GTAW Carbon Pipe Lab	3
WDT 217 SMAW Carbon Pipe Theory	3
WDT 218 Certification Theory	3
WDT 228 Gas Tungsten Arc Welding Theory	3
WDT 257 SMAW Carbon Pipe Lab	3
WDT 268 Gas Tungsten Arc Lab	3
Total Major Requirements	48

Minor Requirements

Machine Shop Technology	309999 WMS
MSP 101 Basic Machining Technology	5
MSP 102 Intermediate Machining Technology	5
MSP 121 Basic Blueprint Reading for Machinists	2
Total Minor Requirements	12

Minor Requirements

Air Conditioning/Refrigeration Technology 309999 WAC	
ACR 111 Refrigeration Principles	3
ACR 115 Heating Systems	3
ACR 132 Residential Air Conditioning	3
ACR 133 Domestic Refrigeration	3
Total Minor Requirements	12

General Requirements 18

Total Requirements for AOT Degree 78

*Computer competency skills are embedded within one or more courses required in this curriculum.

Welding Career Certificate

480508 WEL

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This program is designed to develop the skills necessary to enter and maintain a job in the welding field. Students should develop the skills necessary to pass a certification test that meets the requirements of the American Welding Society (AWS) D1.1 code. Applicants are not required to have completed any particular subject prior to enrollment. The current Welding curriculum is taught during the evening only; therefore, a student should anticipate more than four semesters to complete the program.

Welders need to have good eye-hand coordination, and they need to be in good physical condition.

Welding is used in fabrication shops, construction, maintenance, ship building, aircraft, automotive, electrical, and machine shops. Welding is a tool of all trades.

The welding field is rapidly expanding, requiring a continually increasing volume of technical knowledge and skills on the part of the operator.

Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.

	Semester		
	Theory	Lab	Hours
COM 100 Introductory Technical English I	3	0	3
MAH 101 Introductory Mathematics I	2	2	3
WDT 108 SMAW Fillet/OFC	3	0	3
WDT 109 SMAW Fillet/PAC/CAC	3	0	3
WDT 110 Industrial Blueprint Reading	3	0	3
WDT 115 GTAW Carbon Pipe Theory	3	0	3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory	3	0	3
WDT 120 Shielded Metal Arc Welding Groove Theory	3	0	3
WDT 122 SMAW Fillet/OFC Lab	0	3	3
WDT 123 SMAW Fillet/PAC/CAC Lab	0	3	3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab	0	3	3
WDT 125 Shielded Metal Arc Welding Groove Lab	0	3	3
WDT 155 GTAW Carbon Pipe Lab	0	3	3
WDT 217 SMAW Carbon Pipe Theory	3	0	3
WDT 218 Certification Theory	3	0	3
WDT 228 Gas Tungsten Arc Welding Theory	3	0	3
WDT 257 SMAW Carbon Pipe Lab	0	3	3
WDT 268 Gas Tungsten Arc Lab	0	3	3

Total Semester Credit Hours 54

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

***A high school diploma or GED is not required for admission to this program. Students must be at least 16 years old to enroll.

Basic Welding Technology Short-Term Certificate

480508 WDT

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This certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compete favorably in the welding field.

Opportunities for welders exist in the business services industry, manufacturing, repair and production work, construction, machinery maintenance, wholesale trade and automobile vehicle industry.

Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.

	Semester		
	Theory	Lab	Hours
WDT 108 SMAW Fillet/OFC	3	0	3
WDT 109 SMAW Fillet/PAC/CAC	3	0	3
WDT 110 Industrial Blueprint Reading	3	0	3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory	3	0	3
WDT 122 SMAW Fillet/OFC Lab	0	3	3
WDT 123 SMAW Fillet/PAC/CAC Lab	0	3	3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab	0	3	3
WDT 218 Certification Theory	3	0	3

Total Semester Credit Hours 24

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

***A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.