WELDING

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Our programs in welding technology train students in the theories and processes of welding through a combination of hands-on training and classroom studies.

This degree prepares students for entry-level employment in the field of Welding through the study of fabrication, metal transfer and the use of different shielding gases. Students will acquire skills in metallurgy, blueprint reading and layout techniques, thermal cutting multi-position metal transfer, well-joint design and application, and basic material science.

Students are required to take a two-part examination composed by the American Welding Society to apply for AWS Entry Level Welding Certification.

Our instructor is qualified to judge AWS Certification Tests in:

- Shielded Metal Arc Welding (SMAW)
- Gas Metal Arc Welding (GMAW)
- Flux Core Arc Welding (FCAW)
- Gas Tungsten Arc Welding (GTAW)

The TC requirements of the program provide the foundation for continued studies for the students who desire to continue his or her education. Courses completed in this certificate program may be applied toward the welding technology associate of applied science degree.

The associate of applied science degree in welding technology is designed to prepare the individual for a career as a welding technician in the fabrication, construction and manufacturing industries.

Employers in the welding industry are eager to hire highly skilled professionals who have undergone a training or credentialing program. The more you know about testing methods and industry regulations, the better equipped you'll be to land the job and give you a competitive advantage over other applicants when looking for a job.

A welding technology degree demonstrates to potential employers that you possess a thorough understanding of fundamental welding concepts.

Each student will be required to furnish their own tools as approved by the instructor.

Programs

- Welding Technology, Associate of Applied Science (https://catalog.atu.edu/ozark/programs/welding/welding-technology-aas/)
- Welding Technology, Certificate of Proficiency (https://catalog.atu.edu/ozark/programs/welding/welding-technology-cp/)
- Welding Technology, Technical Certificate (https://catalog.atu.edu/ozark/programs/welding/welding-technology-tc/)

Courses

WLD 1103 Introduction to Thermal Cutting
Students will learn the principles and procedures for oxyfuel cutting, plasma cutting, and carbon arc gouging. Safe shop practices will be emphasized. Ozark CTE General Technology

WLD 1202 Blueprint Reading
Students will learn to read and interpret various kinds of blueprints and working drawings. AWS welding symbols and their meanings will be taught. Ozark CTE General Technology

WLD 1212 Industrial Safety in Welding
The study of safe and industry accepted practices and equipment necessary for the safe use of all existing manual methods of welding. Student will learn to identify common industrial and occupational hazards and means to avoid accidents. Ozark CTE General Technology

WLD 1224 Introduction to Arc Welding
This course is intended to teach theory and application of basic Astick@ welding (SMAW). It will cover safety, correct selection of electrodes, practicing beds and the application of correct welds on actual structures. This course is designated as "Green". Ozark CTE General Technology

WLD 1302 Metallurgy
An elementary and practical approach to the structure, marking classifications, machinability and identification of metals and their properties. This will require the use of various manufacturer catalogs, bulletins and charts. Basic heat treatment and how metals are affected will be discussed. Ozark CTE General Technology

WLD 1403 Welding for Trades and Industry
This course is intended to teach theory and application of welding for trades and industry. This course will be specific to the needs and applicable to each area of interest. It will cover basic welding safety, correct cutting torch handling, basic gas metal arc welding (MIG), gas tungsten arc welding (TIG), and shielded metal arc welding. Specific applications will be deemed by the appropriate advisor. Ozark CTE General Technology

WLD 1405 Position Welding
Prerequisite: WLD 1224 or permission of instructor.
A continuation of the study of Arc welding concentrating on more advanced weld positions and varied electrodes. This course will also discuss hard facing, padding, and the techniques for welding pipe. Ozark CTE General Technology

WLD 1503 Gas Metal Arc (MIG) Welding
Prerequisite: WLD 1405 or permission of instructor.
Provides student with theory and application of wire feed processes also known as MIG Welding or semi-automatic and automatic processes. The student also gains an understanding of the basic gases and mixtures used for different materials. This course is designated as "Green". Ozark CTE General Technology

WLD 1603 Gas Tungsten Arc (TIG) Welding
Prerequisite: WLD 1405 or permission of instructor.
Study of Gas Tungsten Arc (TIG) Welding commonly referred to as TIG or Heliarc. This course will focus on shielding gases, equipment and feasible use situations. Safety will be addressed and demonstrated in a lab experience. This course is designated as "Green". Ozark CTE General Technology

WLD 1702 Weldment Testing
Covers different types of testing such as destructive and nondestructive. Students will study guided bend, radiographic, ultrasonic, magnetic particle and dye penetrant tests, and take practical tests that are designed according to AWSD1.1 and ASME Section IX industry standard codes. Ozark CTE General Technology

WLD 1804 Certification Welding I
Student practices with projects that are designed according to AWSD1.1 and ASME Section IX industry standard codes. The implementation and approval of the codes in accordance with AWSD1.1 and ASME section IX will be addressed. Documentation of procedure will also be covered. Ozark CTE General Technology

WLD 2804 Certification Welding II
This is a continuation of WLD 1804. Student practices and takes practical tests that are designed according to AWSD1.1 and ASME Section IX industry standard codes. The implementation and approval of the codes in accordance with these standards will be addressed. Documentation of procedure will also be covered. Students in this class will have more emphasis in pipe certification. Ozark CTE General Technology Ozark Welding Fee: $200.