

WELDING TECHNOLOGY (WELD)

WELD 1005 Safety

1.0 credit hours

15.0 Classroom Hours = 15.0 Lecture Hours

Dealing with safety with specifics on hazards in the workplace for welders.

WELD 1115 Arc/Gas Welding I

4.0 credit hours

180.0 Classroom Hours = 10.0 Lecture Hours + 170.0 Lab Hours

In-position and out-of-position arc welding, oxyacetylene welding and cutting mild steel, selection of rods, fluxes, electrodes and materials, and safety. Prerequisite: WELD 1005.

WELD 1125 Intro to TIG Welding

1.0 credit hours

45.0 Classroom Hours = 10.0 Lecture Hours + 35.0 Lab Hours

Basic welding of aluminum using the TIG welding process.

WELD 1135 Intro to MIG Welding

1.0 credit hours

45.0 Classroom Hours = 10.0 Lecture Hours + 35.0 Lab Hours

Metallic Inert Gas welding set up, operation, and safety; basic joints and positions, semi-automatic welding of ferrous and difficult-to-weld metals. Prerequisite: WELD 1005.

WELD 1140 Metals & Metallurgy

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Manufacture and processing of ferrous and nonferrous metals; identification; physical and chemical properties; low, medium and high carbon steels; alloy steels; cast iron and stainless steel.

WELD 1145 Print Reading

2.0 credit hours

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

Blueprint, schematic, and diagram reading for welders, basic drawing interpretation and welding symbols and their significance. Prerequisite: WELD 1005.

WELD 1220 Arc/Gas Welding II

3.0 credit hours

105.0 Classroom Hours = 15.0 Lecture Hours + 90.0 Lab Hours

Advanced Arc and Gas welding techniques. Prerequisite: WELD 1005 and WELD 1115.

WELD 1240 Intermediate MIG

3.0 credit hours

105.0 Classroom Hours = 15.0 Lecture Hours + 90.0 Lab Hours

An intermediate MIG welding course that prepares the student to do advanced techniques in wire and flux core welding in all positions. Prerequisites: WELD 1005 & WELD 1135

WELD 1245 Welding Prefabrication

2.0 credit hours

30.0 Classroom Hours = 30.0 Lecture Hours

Designed to prepare the student for the required adjustments to the world of work with speed and quality work habits to the satisfaction of the employer or customer. Prerequisites: WELD 1005, WELD 1140 & WELD 1145.

WELD 1250 Intermediate TIG

3.0 credit hours

105.0 Classroom Hours = 15.0 Lecture Hours + 90.0 Lab Hours

Advanced TIG welding techniques. Prerequisite: WELD 1005 and WELD 1125.

WELD 1260 Applied Math for Welders

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Mathematics for welders, including fractions, decimals, and metric measurements. Prerequisite: WELD 1005.

WELD 1720 Arc Welding

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

All position arc welding technique, equipment, materials and selection of electrodes. Fee \$20.

WELD 1730 Arc & Oxyacetylene Welding

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Arc and gas welding technique, equipment, materials and selection of electrodes. Fee \$25.

WELD 1750 TIG Welding (GTAW)

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Tungsten-Inert gas welding of steel, aluminum and stainless steel. Fee \$50.

WELD 1760 MIG Welding (GMAW)

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Maintenance and production wirefeed welding using metallic-inert gas on ferrous and nonferrous metals in all positions. Fee \$20.

WELD 1770 Certification Welding

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Preparation to obtain certification for welding in accordance with code qualification. Fee \$30.

WELD 1780 Commercial Art Welding

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Art welding using all types of materials and equipment to weld art sculptures, figurines and ornamental projects.

WELD 1790 Welding Review Refresher

2.0 credit hours

45.0 Classroom Hours = 23.0 Lecture Hours + 22.0 Lab Hours

Welding review for new techniques and certification.

WELD 2310 Advanced TIG

4.0 credit hours

150.0 Classroom Hours = 15.0 Lecture Hours + 135.0 Lab Hours

A course that will prepare the student to perform advanced TIG welding practice and procedures on carbon steel pipe and weld hard to weld metals such as aluminum, stainless steel, and cast irons. Prerequisite: Sophomore standing in welding.

WELD 2320 Plate Pre-Qualification

2.0 credit hours

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

A course that is a prerequisite to Qualification Welding; preparing the student for the weld certification course, preparing plates, proper alignment and tacking procedures, then completing the weld to meet the D1.1 code visual specifications. Prerequisite: Sophomore standing in welding.

WELD 2330 Pipe Pre-Qualification

2.0 credit hours

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

A course that is designed to allow a student time to prepare and practice for pipe qualification. Prerequisite: Sophomore standing in welding.

WELD 2340 Codes & Standards

2.0 credit hours

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

A course designed to teach the student about code book navigation, weld measuring tools, welding procedure specification and weld inspection. Prerequisite: Sophomore standing in welding.

WELD 2350 Project Layout

2.0 credit hours

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

A course designed to teach use of measuring tools and layout tools for project estimation, for proper set up and alignment of welds. Prerequisite: Sophomore standing in welding.

WELD 2410 Welding Qualification

5.0 credit hours

225.0 Classroom Hours = 10.0 Lecture Hours + 215.0 Lab Hours

A course for qualification welding and testing for certification welding. Prerequisites: WELD 2320 and WELD 2330.

WELD 2420 Welding Internship

2.0 credit hours

120.0 Classroom Hours = 120.0 Lab Hours

Hands on experience working as an employee with a local welding business and coordinated by Mid-Plains Welding Department.

Prerequisites: WELD 2310, WELD 2320, WELD 2330, WELD 2340, and WELD 2350.

WELD 2990 Special Topics

2.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Special topic course description upon request.