
WELDING

WELDING

WELD 105 Draw/Weld Symbol Int**3 Credits**

An introduction to the interpretation of basic elements of blueprints, sketches, and interpretation of welding symbols. Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 110 Basic Arc Welding Principles**.5-5.5 Credits**

Course provides students with the basic knowledge and understanding to complete fillet and groove welds in the 1G and 1F positions using the shielded metal arc welding (SMAW) process on plain carbon steel. (15 contact hours per credit) Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 136 Welding Maintenance Tech I**1-3 Credits**

In this course the Maintenance Technician will learn safety in welding and Oxy-Fuel Cutting operations. Also covered in this course, the Maintenance Technician will gain an understanding of electrodes and electrode selection as well as develop an understanding on Shielded Metal Arc Welding equipment that is used in the shop and field environments. The Maintenance Technician will perform the operation of using high alloy electrodes to extract broken bolts. The Maintenance Technician will become knowledgeable in the MSHA and OSHA fabrication regulations regarding hand railing. Repeatable up to three times. (Formerly WELD 135, Welding for the Maintenance Technician I) Prerequisite: Must have been accepted into the Diesel Technology Program or have been accepted into the Industrial Maintenance Program.

WELD 150 Metallurgy Fund for Weld**.5-3 Credits**

Explore the basic scientific theory as well as the practical side of metallurgy as it pertains to the welding field. May be repeated up to three credits. Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 160 Weld Design/Layout & Pipe**5.5 Credits**

A laboratory and lecture course in the design, layout, and construction of plate, pipe, and structural beams used in the fabrication and welding industries. Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 200 Metal Art**3 Credits**

This course is designed to give the student the basic understanding of two dimensional 2D and three-dimensional 3D metal art. Also covered in this course we will discuss different Cutting, Welding and metal finishing techniques that are used in this discipline as it relates to metal art. Prerequisite:

WELD 210 Advanced Welding Principles**.5-5.5 Credits**

Course provides students with the advanced knowledge to produce high quality welds in all positions on plain carbon steel, using the shielded metal arc welding (SMAW) process. Requires passing a 2G-3G limited thickness qualification test on plain carbon steel. (15 contact hours per credit) Prerequisite: Must have completed WELD 110 or have been accepted into the Welding Technology Program.

WELD 220 Gas Metal & Flux Cord Arc Weld**.5-11 Credits**

Course provides students with the knowledge to produce high quality welds in all positions on plain carbon steel, using the gas metal arc welding (GMAW) short circuit transfer mode and flux cored arc welding (FCAW) processes. Also requires use of the spray transfer mode for the 1F-2F and 1G positions on plain carbon steel. (15 contact hours per credit) Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 235 Welding Maintenance Tech II**1-3 Credits**

The course is designed to give the Maintenance Technician a basic understanding of the principles of the Flux Cored Arc Welding process with hands-on training. The course will also cover the Carbon Arc Cutting process, joint designs, welding symbols, weld testing and inspection. Repeatable up to three times. Prerequisite: Must have completed WELD 136 or have been accepted into the Diesel Technology Program or have been accepted into the Industrial Maintenance Program.

WELD 240 Gas Tungsten Arc Weld**1-8 Credits**

Course provides students with the knowledge to produce high quality welds in all positions on plain carbon steel, aluminum, and stainless steel using the gas tungsten arc welding (GTAW) process. (15 contact hours per credit) Prerequisite: Must have been accepted into the Welding Technology Program.

WELD 250 Welding Cert Preparation**1-6 Credits**

Through instruction and practice, this course prepares the student to pass one or more of the American Welding Society certification tests. [S/U] Prerequisite: Must have completed WELD 210 and WELD 221.

WELD 260 Pipe Welding**8 Credits**

Course provides students with the knowledge of pipe welding principles using shielded metal arc welding processes. (15 contact hours per credit) Prerequisite: Must have completed WELD 210 or have been accepted into the Welding Technology Program.