

WLD 100 Blue Print & Weld Symbols: This course covers basic engineering drawing principles, fundamental concepts of welding specifications, symbols, and blueprint reading as used in industry, and types of welding equipment and operational safety issues. The student will learn to interpret blueprint (welding) design, welding blueprint symbols, understand prints and everything that's included in a print and to prepare ability of working with them. Also, an understanding of standards set by American Welding Society will be taught.

WLD 110 Introduction to Applied Welding Techniques: This introductory course demonstrates knowledge and skill sets through theory and lab practice in the basic welding processes which include SMAW, GMAW, OAW, PAC and OAC. Safety will be emphasized throughout the class and will be in accordance with industry standards for manufacturing.

WLD 120 Gas Metal Arc Welding: This course demonstrates a basic understanding of the Gas Metal Arc Welding processes and key variables that affect the quality of welds. Hands-on labs are provided to give the student the opportunity to become proficient at welding on a variety of metals that include carbon steel, stainless steel and aluminum. Welding will be done on square groove and fillet welds using single pass, and multiple pass welds.

WLD 130 Flat and Horizontal Shield Metal Arc: This course is an introductory course where the student will develop the knowledge and skill thru theory and lab practice in the basic welding processes which include arc welding flat and horizontal positions. Safety will be emphasized throughout the class and will be accordance with industry standards for manufacturing.

WLD 140 Gas Tungsten Arc Welding: This course covers the basic principles and practices of Gas Tungsten Arc Welding or GTAW. The student will discuss basic welding terminology, safety and demonstrate a good working knowledge of TIG (Tungsten Inert Gas) welding principles. This course will identify basic AC/DC welding equipment, various ferrous and nonferrous metals. The Student will perform flat and out-of-position GTAW using the correct shielding gas and filler rods.

WLD 150 Advanced Gas Metal Arc Welding: This course provides an advanced understanding of the Gas Metal Arc Welding process and key variables that affect the quality of welds. Hands - on lab is provided to give the student the opportunity to become proficient at welding on a variety of metals, carbon steel, stainless steel and aluminum. Welding will be done on square groove and fillet welds using single pass, and multiple pass welds.

WLD 210 Vertical & Overhead SMAW: This course provides a basic understanding of the Shield Metal Arc Welding (SMAW) process and key variables that affect the quality of welds. Hands-on labs are provided to give the student the opportunity to become proficient at welding on a variety of metals including carbon steel, stainless steel, and aluminum. Welding will be done on square groove and fillet welds using single pass and multiple pass welds.

WLD 220 Advanced Gas Tungsten Arc Welding: This course covers the advanced principles and practices of Gas Tungsten Arc Welding (GTAW). The student will learn advanced GTAW terminology, apply safety standards and develop a working knowledge of TIG (Tungsten Inert Gas) weld principles. This course will identify advanced AC/DC welding equipment used with stainless steel and aluminum metals.

WLD 230 Welding Fabrications & Layout: This course covers more engineering drawing principles, fundamental concepts of welding specifications, symbols, and blueprint reading as used in industry. Included are types of welding, welding equipment, and safety practices and precautions in the workplace. Emphasis is on print reading, interpretation, analysis, and demonstrations and uses of fabrication and knowledge of these skills.

WLD 240 SMAW Plate Certification Procedures & Testing: This course provides instruction in welding and layouts to understand and achieve welder test methods. The students will work in a hands-on, instructor led environment, simulating actual manufacturing processes. Course evaluation will include a written assessment and psychomotor assessment of skills.

WLD 250 Pipe Welding: This course provides instruction in welding and layout procedures for pipe welding. This will include pipe preparation, explanation and demonstration of pipe fit-up procedures, and discussion of pipe welding terms and definitions. The student will also demonstrate pipe welding acceptance criteria as related to the ASME Section IX welding code. Students will then apply welder certification code data, administer post plate procedure, and perform SMAW to certification skill level required to attempt for a welder certification.

WLD 260 Pre-Pipe Certification: This course covers principles and practices used in the layout and welding and layout procedures involving Shielded Metal Arc Welding (SMAW) applications. Topics will include pipe layout, fit-up, preparation and welding. Pipe welding terms and welding procedures will be explored. Student laboratory experiences will include determining pipe welding acceptance criteria and fabrication to the ASME Section IX welding code prior to welder certification application.