Course Number: SMPW-0092
OCAS Code: None
Course Length: 105 Hours
Career Cluster: Manufacturing
Career Pathway: Welding and Metal Fabrication
Career Major(s): Combination Welder

Pre-requisite(s):

Course Description: This course is an introduction to open-root welds and how to set up welding equipment for making open-root welds. It provides the procedures for making 1G, 2G, 5G, and 6G open-root pipe welds.


Modern Welding, GoodHeart-Willcox (2004)

Math for Welders, Marion and Nino, GoodHeart-Willcox (2001)

Course Objectives: A. Demonstrate an Understanding of SMAW – Open Root Pipe Welds

1. Prepare shielded metal arc welding (SMAW) equipment for open-root V-groove pipe welds. ¹
2. Identify and explain open-root V-groove pipe welds. ¹
3. Perform SMAW for open-root welds in the:
   a. Flat (1G-ROTATED) position ¹
   b. Horizontal (2G) position ¹
   c. Multiple (5G) position ¹
   d. Multiple inclined (6G) position ¹

¹ Welding Skills, National Center for Construction Education and Research (NCCER)

Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.
Grading Procedures: 1. Students are graded on theory and shop practice and performance. 2. Each course must be passed with seventy (70%) percent or better. 3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit: The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.