ISET-1140: FILLET WELDING (STICK)

Cuyahoga Community College

Viewing: ISET-1140 : Fillet Welding (STICK)

Board of Trustees:
June 2024

Academic Term:
Fall 2024

Subject Code
ISET - Integrated Systems Engineering

Course Number:
1140

Title:
Fillet Welding (STICK)

Catalog Description:
Throughout this course, students will learn the skills necessary to perform a fillet weld using various welding processes and positions. Students will become familiar with different stick electrodes including E6010 1/8", E7018 3/32" and/or E7018 1/8". Students will also learn welded joints including types, features and weld size specifications.

Credit Hour(s):
1

Lecture Hour(s):
0

Lab Hour(s):
2

Requisites

Prerequisite and Corequisite
Departmental Approval.

Outcomes

Course Outcome(s):
Students will be able to weld a common fillet weld joint in various positions to industry standards.

Objective(s):
1. Interpret the different welding processes.
2. Practice welding safety through laboratory activities.
3. Utilize STICK in a proper standard of operation, that is, following STICK procedures that produce strong, mechanically sound welds.
4. Demonstrate mastery of fillet welding using the STICK technique in various positions.
5. Demonstrate mastery of welding technique in the weld position.

Methods of Evaluation:
Students are evaluated through daily attendance, punctuality, engagement in lab exercises and cooperation with instructor. Students are also evaluated in the consistency of weld travel speeds, arc lengths and maintaining proper electrical current selections made during the weld pass.

Course Content Outline:

1. **Concepts**
   a. Safety while operating weld equipment
   b. Supplies used in welding
   c. Shielding
2. **Skills**
   a. Apply safety procedures in lab
   b. Metal preparation
   c. Weld equipment set up and operation
   d. Weld fillet joints in various positions
   e. Setup and turn down of welding station
   f. Prepare metal for welding
   g. Select proper hand tools for specific jobs

Resources

Althous, Turnquist, Bowditch, Bowditch, Bowditch. (2023) (January 9, 2023) *Modern Welding*, Goodheart-Wilcox.

Larry Jeffus. (2020) (February 14, 2020) *Welding: Principles and Applications*, Cengage Learning .

William A. Bowditch, Kevin E. Bowditch, Mark A. Bowditch. (2020) (October 6, 2020) *Welding Fundamentals*,

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