WELD 133 Basic FCAW

Credit Hours: 3

Scheduled hours per week

Lecture: .5
Lab: 2.5
Other: 0

Catalog Course Description:

Introduction to the flux core arc welding process. Equipment set-up and safety. Hands-on welding on pad of beads, lap joints, tee joints, and butt joints.

Prerequisites: None

Corequisites: None

Course learning Outcomes:

Students should learn the hands on skills required to set up welding machine student will learn hands on skills and also technical knowledge.

Topics to be studied:

1. Safety
2. Equipment
3. Welding Terms and Definitions
4. Electrodes Angles
5. Weld Nomenclature
6. Welding Positions
7. Joint& Weld Classification
8. Weld quality identification
9. Metal transfer and shielding gas
10. Surfacing weld flat position
11. T- joints in 2G, 3G and 4G positions
12. Bevel Plate Practicing in all positions
13. Bevel Plate AWS certification testing in all positions

Relationship of course to program outcomes:

Students will be proficient with “hands-on” skills in all welding possesses (SMAW,GTAW, FCAW, GMAW)	x
80% of all students will pass ASME welding test on plate 2G,3G and 4G positions and or 6G pipe test	x
Students will be able to perform destructive testing and recognize whether it passes or fails and also the daily functions of a (CWI)	x
Student will know the technology terminology used in the welding industry	x
Students will be able to demonstrate the ability to work ethically, effectively, and respectively with people of diverse backgrounds and with people who have different roles, social affiliations, and personalities.	x

This course meets the following General Education Outcome(s):	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	x
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	x
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
5/3/2016	

**Place an X by all the general education competencies met in this course.*

Special projects or requirements of the course:
Research paper
Equipment “show and tell”

Additional information:
None

Assessment of Outcomes:
Outcomes will be measured by testing (quizzes and final exam)

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Date: 10/18/2017