

WELD 121 Basic SMAW

Credit Hours: 3**Scheduled hours per week**

Lecture: .5

Lab: 2.5

Other: 0

Catalog Course Description:

Safety and nomenclature of the SMAW welding process. Hands-on welding utilizing E6010 and E7018 electrodes on pad of beads, lap joints, tee joints, and butt joints in all positions.

Prerequisites: None**Corequisites:** None**Course learning Outcomes:**

Students should learn the hands on skills required to set up there welding machine and also know all the hands on skills and also teach students technical knowledge.

Topics to be studied:

1. Safety
2. Equipment
3. Welding terms and definitions
4. Welding positions
5. Striking and controlling arc
6. Pad of beads in flat position e6010 and e7018
7. Fillet weld horizontal lap joint
8. Fillet weld T- joint in all positions
9. Bevel plate in all positions
10. Guided bend test

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:

Equipment “show and tell”

Additional information:

None

Assessment of Outcomes:

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

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