WELD 261 Steel Fabrication

Credit Hours: 3

Scheduled hours per week

Lecture: .5
Lab: 2.5
Other: 0

Catalog Course Description:

Job estimation, interpreting layouts from simple sketches or prints. Mathematics of the layout and fit-up situations which arise in weld fabrication.

Prerequisites: (Pre-requisite: MATH 107)

Corequisites: None

Course learning Outcomes:

- Teach student "hands on Skills"
- Teach students technical knowledge about working in the field of welding
- Teach students crane hand signals
- Teach student how to safely work and weld on an elevated Ariel platform (welding tower)
- Teach student how to safely work and weld in a confined space
- Job estimations interpreting layouts from simple sketches, mathematics of layouts and fit-up which arise during weld fabrication
- Utilization of special tools and instruments.

Topics to be studied:

Student will learn how to read and interpret industrial blueprints, measure, cut, fit-up, aerial welding on the welding tower, confined space welding and working in the confined space simulator. Course will also include material handling, welder qualifications, procedure qualifications, NDE testing, utilization of quality control manuals customer specs, inspection, job supervision and documentation.

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	
Students will be able to perform destructive testing and recognize whether it passes or fails and also the daily functions of a (CWI)	
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	x

respectively with people of diverse backgrounds and with people who have different roles, social affiliations, and personalities.	

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:

Additional information:
None

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