Department:

Industrial Welding Technology

Course Description:

This course will continue instruction and experience in Gas Metal Arc Welding (GMAW). The course will cover safety issues, equipment repairs, setting up a complete GMAW system, operation of equipment, surface repairs, groove welds, and thickness qualification tests.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Perform safety inspections of equipment.
2. Make minor external repairs to equipment.
3. Set up components and accessories of a complete GMAW system.
4. Set up for GMAW operations.
5. Operate GMAW equipment.
6. Execute corrective actions to repair surface flaws on welds and base metals.
7. Make 2G and 5G groove welds on carbon steel pipe.
8. Perform a qualification test on carbon steel pipe and plate.

Course Content:

A. Short Circuit Transfer and Spray Transfer
   1. Set up GMAW station
   2. 2F and 5F fillet welds
   3. AWS2-3 qualification test
B. Pulsed Spray transfer
   1. Set up GMAW station
   2. AWS2-4-4 qualification test

Learning Assessments:

Course competencies will be assessed by quizzes, tests, project work, demonstrations, observation, assignments, and written papers.

Instructional Materials:

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Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students must complete the “Disabilities Self-Identification Form” at this link: https://highlandcc.edu/pages/disability-services.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.