Department:

Industrial Welding Technology

Course Description:

This course will cover the cutting equipment and processes used in the welding trade. The course will include set up, operation, and shut down of various cutting equipment. Safety and inspection for quality will be emphasized.

Course Competencies:

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

1. Distinguish and describe several types of mechanical and thermal cutting equipment and processes used in the welding trade.
2. Set up, operate, and shut down the oxy-fuel (OFC) workstation.
3. Set up, operate, and shut down the plasma arc (PAC) workstation.
4. Set up, operate, and shut down the carbon arc cutting with air (CAC-A) workstation.
5. Demonstrate safe and correct operation of several types of mechanical cutting equipment.
6. Inspect quality and tolerance of cut according to industry standards.

Course Content:

A. Oxy-fuel Gas Cutting (OFC)
   1. Torches
   2. Cutting gases
   3. Settings and pressures

B. Plasma Arc Cutting (PAC)
   1. Manual
   2. Mechanical

C. Carbon Arc Cutting (CAC-A)
   1. Gouging
   2. Cutting
   3. Washing

Learning Assessments:

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


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.