Department:

Auto Collision Repair

Course Description:

This course is designed to give students the skills needed to fabricate panels using sheet metal in order to create a finished product by replacing or repairing existing parts.

Course Competencies:

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

1. Identify weldable and nonweldable materials
2. Weld and cut steel
3. Weld and cut aluminum
4. Determine, set up, and adjust the correct GMAW (MIG) welder type
5. Demonstrate proper methods to store, handle, and install gas cylinders
6. Determine location and attach work clamp (ground)
7. Protect vehicle components from welding and cutting operations
8. Prepare metal to be welded
9. Determine joint type and type of weld for specific repairs
10. Perform destructive test
11. Identify causes of welding defects
12. Identify and adjust causes of welder tip and feed problems
13. Finish and paint the product

Course Content:

A. Introduction
   1. Review Tools and Materials
   2. Shop Safety and Efficiency
      a. Shop Accidents
      b. Personal Safety
      c. General Shop Safety Procedures

B. Materials, Tools and Equipment
   1. Types of Panel Forming Tools
   2. Welding

C. Panel Forming
   1. Preparation
   2. Finished Product
      a. Surface Preparation and Paint
      b. Installation of Finished Product, Including Fitting and Welding.
Learning Assessments:

Assessments may include quizzes, tests, project work, demonstrations, instructor observation, weekly 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.

On-Campus Students: At enrollment, any on campus student may complete a form that will allow them to self-identify any disability.

Off-Campus Regional Students: Self-identify your disability and accommodation needs with the Regional Coordinator and/or instructor, preferably prior to the first class meeting.

Online Students: Self-identify your disability and accommodation needs by contacting the Disabilities Coordinator. Students must provide their own programs to allow accessibility on their home computer.

Any student may also identify their disability by completing an online form located on the HCC homepage under Students Services/Resources/Disabilities. Questions should be directed to the Disabilities Coordinator.