CRT 1120

Division: Career and Technical Education
Department: Collision Repair and Refinishing Technology
Course: CRT 1120
Title: Nonstructural Repair
Catalog Description:

This course will instruct students on how to analyze minor damage and apply metal working techniques. It also studies application of rough out, ridge alignment, hammer and dolly, heat shrinking, pick and file, and grinding methods. It presents application of body fillers and shaping. The course emphasizes safety precautions and includes lecture, demonstrations, and lab based on Inter-Industry Conference on Auto Collision Repair (I-CAR) curriculum. When the course is successfully completed, students will be prepared for Automotive Service Excellence (ASE) certification.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 4; Lecture: 1; Lab: 7
Clock/Hour Requirements: 128
Offered for Non-Credit: No
Prerequisites: CRT 1110

Corequisites: None

Justification:

The I-CAR curriculum is recognized as the leader in collision repair training. It also provides the necessary information to pass the ASE task lists and tests required for certification. This course was approved by the advisory committee and similar courses are taught at Utah Valley State College (CRT 1120) and Salt Lake Community College (ACR 1111).

Student Learning Outcomes:

Upon successful completion, students will be able to:

- analyze the impact area of a damaged panel and identify direct and indirect damage forces
- show safe work practices with hand tools and power tools
- use hammer/dolly technique and return a damaged panel to dimensions of Pre-Accident condition
- hot shrink stretched panels to original contour
- use vixon file to show high and low areas of panel
- rough shape and file metalwork before applying filler
- apply filler, rough cut with sandpaper, and finish sand

- use proper tools and materials during repair process
- understand vehicle protection techniques.

Content:

Course objectives will be achieved by providing students with instructional and hands-on experiences in the following areas:

- introduction to hand tools
- risk and hazard management
- introduction to tool safety
- sheet metal terms and types
- metal working procedures
- applying tools to sheet metal
- shrinking and grinding methods
- stress relief in metal
- types of collision damage and dents
- different methods of removing dents
- introduction to pulling tools
- exploring types of body finishes
- types of different fillers
- applying fillers to sheet metal
- repairing dings and dents
- proper sanding methods
- working with adjacent panels
- introduction to air tools
- different types of sandpaper and grits
- featheredging around body work.

General Education Outcomes:

9) Respond with informed sensitivity to an artistic work or experience.

Students will understand the processes and techniques that must be applied for a quality result. This understanding of their trade s specific techniques regarding colors, shapes, and textures will prepare them to be able to judge their own work and that of other technicians for quality against standards and individual preferences.

Key Performance Indicators:

In class:

- Student progress will be evaluated on skill levels demonstrated in lab (70%), quiz scores (10%), and a final comprehensive exam (20%).

Following class:

- Upon completion of the course, safety and competency will be demonstrated in subsequent courses and on custom projects.
- Students will apply the techniques acquired on the job and pass national ASE certification tests.

Representative Text and/or Supplies:

- James E. Duffy, *I-CAR student textbooks and modules,* current editions, Delmar Publishers.

Optimum Class Size: 10
Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Andy Morgan, ,

I hereby find this course consistent with the goals and resources of the Collision Repair and Refinishing Technology Department:

Andy Morgan, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)