

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: AUB 112

Credits: 8

Course Title: Automobile Body Theory and Shop Practices II

Course Description (including lecture hours, lab hours, total contacts)

Teaches and applies the fundamentals and use of body tools and materials. Emphasizes shop safety, metal working, welding, cooling systems. Teaches bodies and frames design and construction, wheel suspensions, steering systems, wheel alignment and balancing, shock absorbers, glass, hardware and upholstery. Part II of II. Lecture 5 hours. Laboratory 9 hours. Total 14 hours per week.

Course Prerequisites/Corequisites (*Entry-level competencies required for enrollment*)

Course Objectives (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- a. Write a work order sheet that expresses a logical sequence of events and procedures to be followed that map out the most efficient repair route or process to an invisible repair.
- b. Disassemble and reassemble most auto body components, including fenders, doors, hoods, deck lids and other related parts in allotted time frame according to course approved auto repair manual guidelines.
- c. Align and/or realign all body panels in proper sequence and within specifications.
- d. Properly utilize various specialized tools and adhere to general shop use and tool use protocol.
- e. Work cohesively as a team in units of two to three people to accomplish tasks as outlined by instructor.
- f. Accurately straighten damaged sheet metal and utilize plastic filler, when appropriate, to achieve invisible repair. Panels with approximate damage of six to seven hours will be the test.
- g. Understand feather edging techniques.
- h. Utilize spray equipment for appropriate primer/surfacer.
- i. Understand and demonstrate proper block sanding techniques.
- j. Express a reasonable comprehension of painting techniques, including however not limited to: finding the paint codes, utilizing proper sandpaper grits, spraying base coats and clear coats.
- k. Detail prep repaired vehicles for delivery including, but not limited to, final detail buffing to remove flaws in clear coats, vacuuming interiors, cleaning glasses, tire dressing application, and interior detailing.
- l. Understand frame and chassis damage diagnostic terminology.
- m. Understand chassis and frame straightening techniques.
- n. Demonstrate ability to properly tie down vehicle on frame machine.
- o. Understand other chassis and frame competences as required by instructor.
- p. Demonstrate ability to remove and replace door skins.
- q. Demonstrate ability to remove and replace welded in quarter panels.
- r. Express vehicle delivery-to-customer proficiency.

Major Topics to be Included

- a. Body and paint shop operations
- b. Shop safety practices
- c. Body shapes and construction types
- d. Body-over-frame construction
- e. Unitized frame and body construction
- f. Personal safety and health protection procedures
- g. Product warning and government regulations
- h. Hammer and dolly utilization
- i. Utilizing body filler to repair single panel damage of up to +/- 7 hours

Effective Date of Course Content Summary (Month, Date Year): 8-1-08