COURSE INFORMATION FORM

DISCIPLINE     Automotive Technology

COURSE TITLE   Plastics and Adhesives

CR.HR 3  LECT HR. 2  LAB HR. 3  CLIN/INTERN HR.  CLOCK HR. N/A

CATALOG DESCRIPTION
Analysis and repair of panels and structures using plastic fillers, fiberglass, structural adhesives and bonding agents.

PREREQUISITES
Acceptance into the Articulation Program for Auto Collision Repair.

EXPECTED STUDENT OUTCOMES IN THE COURSE
Upon completion of this course, the student will be able to:
1. Identify types of plastic components used in the automotive industry.
2. Demonstrate correct repair procedures in accordance with industry standards.
3. Demonstrate the selection and proper use of structural and non-structural adhesives and bonding agents used in the repair of vehicles.
CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written test. (1, 2, 3)
2. Observation and evaluation of laboratory performance. (2, 3)

PROGRAM-LEVEL OUTCOMES ADDRESSED

General Education Outcomes
Specify which general education outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes and assessment measures.

Occupational Program Outcomes
Specify which occupational program outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes to assessment measures.
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Body shop safety, tools and equipment
   A. Shop safety
   B. Tools of the industry
   C. Materials and disposal methods

II. Identification of different types of plastics used in the automotive industry

III. Identification of plastic repair techniques and analysis of damage to components

IV. Airless welding
   A. Setup and preparation of materials
   B. Perform welding

V. Hot-air welding
   A. Setup and preparation of materials
   B. Perform welding

VI. Urethane or epoxy adhesives
   A. Preparation for repair of parts
   B. Retexture parts
   C. Repair of vinyl-clad urethane foam parts

VII. Rigid exterior SMC body panels
    A. Removal of damaged areas
    B. Repair of panels
    C. Preparation for refinishing

VIII. Fiberglass panels
    A. Analysis of cause and extent of damage
    B. Preparation of panels for various repair methods
    C. Repair of panels and reinstall, if repaired off-vehicle
    D. Refinishing of panels and preparation for painting