I. **OVERVIEW**
The following information will appear in the 2009 - 2010 catalog

**AUBDY 322 Automotive Spray Refinishing 2** 3 Units

**Prerequisite:** Satisfactory completion of AUBDY 321 and AUBDY 301.

Continuation of AUBDY 321 with further instruction of automotive refinishing with single stage, base/clear coat urethane paints, and estimate writing.

**Materials Fee Required**
Field trips might be required. (A-F Only) Lecture /Lab

II. **LEARNING CONTEXT**
Given the following learning context, the student who satisfactorily completes this course should be able to achieve the goals specified in Section III, Desired Learning:

A. **COURSE CONTENT**

1. **Required Content:**

   1. Instruction in the safe handling and spraying of all catalyzed material
      a) Types of finishes
      b) Acrylic urethane and base coat/clear coats
   2. Surface preparation for complete refinishing
      a) Washing
      b) Special solvent cleaning
      c) Sanding
      d) Masking
      e) Tacking
      f) Sealing
   3. Spray techniques
      a) Air pressure
      b) Gun adjustments
      c) Gun distance and uniform coating
      d) Fog coats
   4. Color matching fundamentals and techniques
      a) Standard color shades
      b) Light and dark shades
      c) Metallic and non-metallic paints
      d) Color perception
   5. Color reduction and additives
      a) Reducers
      b) Retarders
      c) Catalysts
      d) Silicone additives
   6. Accelerators Paint Failures
      a) Crazing
      b) Blushing
      c) Checking and line-cracking
      d) “Runs”
      e) “Fish eye”
      f) Metallic mottling
   7. Visual observation for repairs
      a) Surface condition
      b) Type of old finish
      c) Selection of materials
d) Estimate of repairs (production level)
8. Paint Booth spraying
   a) Preparation
   b) Ventilation system
   c) Filters
   d) Respirators and (fresh-air-respirators)
   e) Protective clothing
9. Baking and force-dry equipment
   a) Stationary ovens
   b) Convection drying
   c) Inferred drying
10. Flexible plastic parts
    a) Identification
    b) Interior and exterior parts
    c) Elastomeric paint finisher
    d) Selection and application
11. Care of the paint finish
    a) Washing
    b) Solvent cleaners
    c) Polishes and wax
    d) Chrome
    e) Glass

2. **Required Lab Content:**

   A. Safety Review
      1. Personal safety
      2. Environmental safety
      3. 321 Review
   
   B. Estimating Automotive Damage
      1. Types of damage
      2. Analyze damage
      3. Appraisal
   
   C. Spray Booth Operations
      1. Maintenance
      2. Electrical
      3. Filters
   
   D. Prepare and Refinish Entire Vehicle
      1. Stripping
      2. Primer
      3. Sanding
      4. Cleaning
      5. Masking
      6. Refinishing

B. **Enrollment Restrictions**

1. **Prerequisites**

   Satisfactory completion of AUBDY 321 and AUBDY 301.

2. **Requisite Skills**

   *Before entering the course, the student will be able to:*
a. Analyze, evaluate, and manipulate the repair or replacement of non-structural steel panels.

b. Identify and demonstrate industry safety standards pertaining to the use of chemicals and equipment in a shop environment.

c. Understand the processes of refinishing a small project using water borne and solvent paint products.

3. **Health and Safety Skills/Restrictions**

   *Before entering the course, the student must demonstrate the following skill or condition:*

   a. Demonstrate the ability to comply with industry safety and environmental issues.

C. **HOURS AND UNITS**

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<th>TERM HOURS</th>
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D. **METHODS OF INSTRUCTION (TYPICAL)**

   *Instructors of the course might conduct the course using the following method:*

   1. Related material will be presented in the classroom through the use of DVDs, Video, and informational and procedural sheets

   2. Lab Environment introductions will be provided on facilities, tools and equipment relevant to course material

   3. Techniques and Procedures will be presented via instructor lab demonstrations

E. **ASSIGNMENTS (TYPICAL)**

1. **EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS**

   *Time spent on coursework in addition to hours of instruction (lecture hours)*

   1. Weekly chapter(s) reading assignment

   2. Weekly assigned review questions at the end of chapter for discussion in class at following lecture meeting

   3. Review and study of handouts and procedure sheets (sporadic throughout term)

   4. Weekly maintenance of laboratory journal that keeps notes on procedures, new techniques, etc.

2. **EVIDENCE OF CRITICAL THINKING**

   *Assignments require the appropriate level of critical thinking*

   1. Typical Written Assignment after Paint Booth Demo: Draft a schematic diagram of laboratory paint booth controls and describe functions of switches, knobs, and sensors. Address all safety concerns, significance of sensors, procedures and tolerances associated with properly operating the paint booth control panel.

   2. Typical Knowledge of Vehicle Preparation: Student must demonstrate adequate knowledge of the proper stages of vehicle preparation for paint prior to being able to work on a vehicle. This evidence is demonstrated from quiz answers or verbal explanation one on one with professor.

F. **TEXTS AND OTHER READINGS (TYPICAL)**

III. DESIRED LEARNING

A. COURSE GOAL
   As a result of satisfactory completion of this course, the student should be prepared to:

   repair damaged sheet metal on vehicles. Prepare, paint and polish repaired areas to match original paint on vehicle, and paint a complete vehicle.

B. STUDENT LEARNING GOALS
   Mastery of the following learning goals will enable the student to achieve the overall course goal.

   1. Required Learning Goals
      Upon satisfactory completion of this course, the student will be able to:

      a. formulate an estimate of repairs to a vehicle.
      b. demonstrate the entire process of a complete overall refinish of a vehicle.

   2. Lab Learning Goals
      Upon satisfactory completion of the lab portion of this course, the student will be able to:

      a. Memorize and demonstrate all spray refinishing safety procedures
      b. Properly prepare a vehicle and apply all materials necessary for complete refinishing with base coat/clear coat paints

IV. METHODS OF ASSESSMENT (TYPICAL)

A. FORMATIVE ASSESSMENT
   1. Weekly Reading Assignments
   2. Weekly Homework Assignments
   3. NATEF Lab Sheets
   4. Bi Monthly Quizzes

B. SUMMATIVE ASSESSMENT
   1. Mid Term Exam
   2. Final Performance Evaluation
   3. Final Exam