

Last updated: 9/99

San Bernardino Valley College

Course Outline for AUTOIN 010
BASIC CUSTOM AUTO INTERIORS

I. CATALOG DESCRIPTION:

Department: Automotive

AUTOIN 010: Basic Custom Auto Interiors

3 hours lecture, 3 hours laboratory = 4 units

Catalog Description: Basic information and practical experience in design, creation and installation of complete custom and hot rod automotive interiors. Includes instruction in safe work practices, using trimmers, hand and power tools, common covering materials. Cut, sew and fit techniques are stressed.

Schedule Description: Basic theory and practical experience in creating custom automotive interiors. Safe work practices and the use of tools to develop cut, sew and fit skills are emphasized.

Prerequisite/Corequisite: None

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One

III. EXPECTED OUTCOMES FOR STUDENTS:

Upon completion of this course, the student will be able to:

- A. Compare and contrast custom interiors and original production designs and materials.
- B. Describe ten characteristics of award winning vehicle interiors.
- C. List and describe five current publications related to restoration and/or custom car upholstery.
- D. Compare and contrast the differences in using fabric, vinyl and leather covering materials for interior projects.
- E. Prepare a bill of materials, time estimate and labor cost for a typical custom interior replacement job.
- F. Identify and notify the instructor of potential safety hazards in the shop areas.
- G. Identify and explain the proper use of the typical upholsters sewing machine.
- H. Identify and describe the use of twenty different interior fasteners.
- I. Perform disassembly operations on a typical seat restoration project to industry standards.
- J. Perform disassembly operations on a typical door panel restoration project to industry standards.
- K. Prepare seat cushions and backs for recovering using current methods and materials.
- L. Cut, fit and sew the covering materials for a minimum of one seat and one door panel.
- M. Apply cover materials to a minimum of one seat and one door panel.

- N. Identify common chemical adhesive materials and discuss their safe use and storage.

IV. CONTENT:

- A. Interior Designs
 - 1. Original equipment
 - a. Materials
 - b. Production methods
 - c. Costs
 - 2. Custom
 - a. Overview of complete project
 - b. Preparation and planning
 - c. Written estimate
 - d. Meticulous work
- B. Designing and Planning a Custom Interior
 - 1. Ideas, drawings and patterns
 - a. Review of award winners
 - b. Sketch it out
 - c. Visualizing completed project
 - d. Pattern making
 - e. Chipboard method
 - 2. Materials
 - a. Choices
 - b. Sources
 - c. Cost
 - d. Purchase
- C. Basic Fabrication
 - 1. Overall plan
 - a. Approved design
 - b. Completion schedule
 - 2. Insulation
 - a. Floor
 - b. Side panel
 - c. Headliner
 - 3. Wood work
 - a. Types of wood
 - b. Hardware and fasteners
 - 4. Metal work
 - a. Cutting tools and methods
 - b. Shaping tools and techniques
 - 5. Working with basic covering materials
 - a. Fabric
 - b. Vinyl
 - 6. Small panels, rests and pulls
 - a. Arm rests
 - b. Door pulls

- c. Stereo panels
 - d. Modesty panels
- 7. Basic door panels
 - a. Base materials
 - b. Padding
 - c. Cut fit and sew
 - d. Install
- 8. Basic seats
 - a. Existing framework
 - b. Support and padding materials
 - c. Cut, fit and sew
 - d. Install
- 9. Bow type headliner
 - a. Measurements
 - b. Cut, fit and sew
 - c. Install
- 10. Miscellaneous coverings
 - a. Reveal moldings
 - b. Window frames
 - c. Visors
- 11. Basic carpet making
 - a. Pattern, measurements
 - b. Cut, fit, sew
 - c. Padding
 - d. Install

V. METHODS OF INSTRUCTION:

The methods of instruction include, but not limited to:

- A. Lecture and direct laboratory demonstration by the instructor.
- B. Guided laboratory practice by the student.
- C. Presentations and demonstrations by field experts.

VI. TYPICAL ASSIGNMENTS:

- A. After reading textbook material on kick panels, make a procedure outline of all steps discussed.
- B. Prepare a detailed job estimate to current Bureau of Automotive Repair standards.
- C. Wind a bobbin and thread a sewing machine.
- D. Piece together two vinyl materials using a straight line stitch at least 12 inches long with a tolerance of 1/8 inch.
- E. Apply sound deadening material to the interior surface of a door.

VII. EVALUATION(S):

- A. Methods of Evaluation:
 - 1. Oral and written tests;
 - 2. Demonstrate manipulative skills according to industry standards in the performance task.;

3. Active participation in discussion periods;
 4. Progress presentations
 5. A comprehensive written final exam.
- Typical Questions:
- a. List the major elements of a well-written estimate.
 - b. Explain a compound curve.
 - c. To what chipboard method refer?

- B. Frequency of Evaluation:
1. Weekly assignments
 2. One midterm exam
 3. One final exam

VIII. TYPICAL TEXT(S):

Don Taylor, Ron Mangus, Custom Auto Interiors, Fisher Books 1998
Don Taylor, Automotive Upholstery Handbook, Fisher Books 1993

IX. OTHER SUPPLIES REQUIRED OF STUDENTS:

Safety glasses, notebook