

# BUTTE COLLEGE

## COURSE OUTLINE

### I. CATALOG DESCRIPTION

**AUT 201 - Emissions and Transmissions Auto Skills Practice**

**0.5 - 1 Unit(s)**

**Prerequisite(s):** NONE

**Co-requisite(s):** Must be enrolled in a minimum of 2 units of AUT courses (excluding AUT 1, AUT 41)

**Recommended Prep:** AUT 1

**Transfer Status:** NT

25.5 - 51 hours Lab

This course is a supervised lab experience designed to update and enhance technical skills in one or more of the following areas: Electrical, Computer/Emission Controls, Drivability and Transmissions/Drive Trains. Instruction will be a combination of laboratory demonstrations and skills practice. Students may enroll in this course up to 1 unit(s) to complete the entire curriculum of the course. Pass/No Pass Only. Open Entry/Open Exit.

### II. OBJECTIVES

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

- A. Demonstrate the basic overhauling procedures of automatic transmissions/transaxles.
- B. Diagnose, test and repair automatic transmissions/transaxles.
- C. Diagnose, test and repair manual transmission/transaxles problems.
- D. Systematically diagnose and repair actual engine performance problems using industry-approved electronic test equipment.
- E. Perform circuit analysis, diagnostic testing, and repair of computer-controlled systems.

### III. COURSE CONTENT

#### A. Unit Titles/Suggested Time Schedule

Lab	
<u>Topics</u>	<u>Hours</u>
1. Automatic transmission/transaxles overhaul procedures	4.25 - 8.50
2. Automatic transmission/transaxles repairing	4.25 - 8.50
3. Manual transmission/transaxles overhaul and repair	4.25 - 8.50
4. Auto electrical circuit analysis and diagnosis	4.25 - 8.50
5. Pollution control devices operation and repair (The Clean Air Car Program)	4.25 - 8.50
6. Computer controls	4.25 - 8.50
Total Hours	25.5 - 51

### IV. METHODS OF INSTRUCTION

- A. Class Activities
- B. Discussion
- C. Demonstrations
- D. Laboratory Experiments
- E. Problem-Solving Exercises and Skills Practices
- F. Selected reading from automotive repair manuals

## **V. METHODS OF EVALUATION**

- A. Lab Projects
- B. Effective use of time as compared to the flat rate manual.
- C. Number of successful completed jobs.

## **VI. EXAMPLES OF ASSIGNMENTS**

- A. Reading Assignments
  - 1. Using Mitchell's or Honda ISIS reference material, read the technical information and data required for your assigned repair job. Be prepared to discuss in class.
  - 2. Using ALLDATA reference material, read the technical information and data required for your assigned repair job. Be prepared to share with the class.
- B. Writing Assignments
  - 1. Generate a practice repair order for the transmission job assigned to the class. After the job is completed write a detailed story of the job.
  - 2. Fill out an electronic parts requisition including all proper vehicle information to enable professional parts counter personnel to order proper parts for a specific job.
- C. Out-of-Class Assignments
  - 1. Not applicable

## **VII. RECOMMENDED MATERIALS OF INSTRUCTION**

Materials Other Than Textbooks:

- A. Instructor-developed materials, handouts and worksheets.
- B. Manufacturer-developed materials, technical manuals.
- C. Department vehicles.
- D. Student owned vehicles.

**Created/Revised by:** George Medina

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