

**PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE**

Transfer Course A.A. Degree Applicable Course
(check all that apply)

COURSE NUMBER AND TITLE: AT 120 Automatic Transmissions and Drive Lines

UNIT VALUE: 3 **MINIMUM NUMBER OF SEMESTER HOURS:** 80

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS:

PREREQUISITES: None.

COREQUISITES: None.

RECOMMENDED PREPARATION: None.

SCOPE OF COURSE:

The hydraulic and mechanical function and repair of automatic transmissions. The disassembly, inspection, reassembly, and testing of three speed conventional transmissions, clutches, universal joints and differentials.

SPECIFIC COURSE OBJECTIVES:

The student will:

1. Receive basic hydraulic and mechanical theory of operation of standard and automatic transmissions.
2. Mechanical confidence through practice or tear down and reassembly of several transmission units.
3. Prepare for advanced training in automatic transmission and related drive trains.
4. Apply principles of shop safety.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Theory
 - A. Mechanical
 - B. Hydraulics
 - C. Diagnosis
- II. Units of Instruction
 - A. General Motors
 - B. Ford
 - C. Chrysler
 - D. Imports
- III. Testing and Evaluation
 - A. Set-up on Dynamometer
 - B. Diagnosis and Repair of Malfunctions
 - C. Evaluation of Service Units
- IV. Examinations
 - A. Written - One for Each Transmission Studies
 - B. Performance Test
 - C. Identification of Components

REQUIRED READING:

Automotive Transmissions & Transaxles. 3rd ed. Sunnyvale, CA: Check Chart Publications, 1997.

SUGGESTED READING:

ATRA Pamphlets. Ventura, CA: Automatic Transmission Rebuilders Association, 1994.

REQUIRED WRITING:

One report prepared on a subject within the scope of the course to consist of not less than two pages. Homework assignments from the text.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per week per unit in class and on outside assignments, prorated for short term classes.

Reading (tech library), viewing film strips and videos on subject (library), reading periodic literature and service manuals. The student will take 6-8 hours in this activity.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply. (See guidelines for preparation for definitions.)

- telecourse
- mediated instruction
- computer assisted instruction

GRADING POLICY AND STANDARDS (include methods for determining whether the stated objectives have been met by students):

Tests for each unit of instruction	40%
Participation in class and lab activities	40%
Outside reading and study	20%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes No Number of times course may be taken for credit: 1.

If yes, identify specific provision of Title 5 Division 2 section(s) 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Jerome Latulippe Ext. 2715

SIGNATURES:

SIGNATURES ON FILE
