

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 220 Advanced Automatic Transmissions

UNIT VALUE: 3 **MINIMUM NUMBER OF SEMESTER HOURS:** 108

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS:

PREREQUISITE: AT 120

COREQUISITE: None.

RECOMMENDED PREPARATION: None.

SCOPE OF COURSE:

Advanced specialized training in automatic transmissions currently in use in General Motors, Ford, and Chrysler cars and light trucks.

SPECIFIC COURSE OBJECTIVES:

Students will:

1. Apply principles of transmission theory.
2. Identify automobile transmission systems.
3. Identify transmission repair methods.
4. Evaluate on-road conditions of transmission malfunctions.
5. Apply principles of shop safety.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Introduction

- II. GM Transmissions
 - A. Description
 - B. Power Flow
 - C. Disassembly
 - D. Checks and Measurements
 - E. Assembly
 - F. Air Checks

- III. Ford Transmissions
 - A. Description
 - B. Power Flow
 - C. Disassembly
 - D. Checks and Measurements
 - E. Assembly
 - F. Air Checks

- IV. Chrysler Transmissions
 - A. Description
 - B. Power Flow
 - C. Disassembly
 - D. Checks and Measurements
 - E. Assembly
 - F. Air Checks

- V. Transmission Troubleshooting
 - A. Oil Pressure Tests
 - B. Road Test
 - C. Up-Shift Tests
 - D. Forced Down-Shift Tests

REQUIRED READING:

Automotive Transmissions & Tranaxles. 3rd ed. Sunnyvale, CA: Chek Chart Publications, 1997

SUGGESTED READING:

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

REQUIRED WRITING:

One five page report on a particular transmission to be assigned.

OUTSIDE ASSIGNMENTS:

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

Prepare one transmission mock-up or build special tool for use in transmission worl. Six hours outside reading and study per week.

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):

- 60% Class participation and participation
- 30% Written Exams (midterm and final)
- 10% 5 page written report

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