

**DE ANZA COLLEGE
AUTOMOTIVE TECHNOLOGY
A.T. 93C - AUTOMATIC TRANSMISSION SERVICE
GREENSHEET**

AUTOMOTIVE TECHNOLOGY 93C

I. Catalog Information

AUTO 93C Automatic Transmission 5 Units

Prerequisites: Approved Automotive Technology course
sequence contract.

Advisory: English Writing 100 and Reading 100 (or Language Arts 100),
or English as a Second Language 172 and 173;
Mathematics 101 or 102

Ten hours lecture-laboratory per week

One hundred twenty hours lecture-laboratory per
quarter

Operation of automatic transmissions including torque
converters, hydraulic control, planetary gear train,
clutch and band operation. Inspection and repair
procedures for automatic transmissions.

II. Course Objectives

The student will:

- A. Identify and describe the major components in
automotive and light duty truck transmissions.
- B. Service each of the components in automotive and
light duty truck transmissions.
- C. Tear down, inspect and estimate repair cost and
procedure for selected automotive and light duty
truck transmissions.
- D. Diagnose problems in automotive and light duty
truck transmissions

III. Essential Student Materials

- A. Safety glasses
- B. Approved coveralls and work shoes

C. Basic hand tools and required specialty tools as stated on the Automotive Technology General, Chassis and Powertrain tool lists.

IV. Essential College Facilities

Lecture classroom and automotive laboratory

V. Expanded Description: Content and Form

A. Automatic Transmission Theory

1. Theory
2. Service and repair techniques
3. Diagnostic procedures

B. Rebuilding Techniques

1. Tear down inspection and cleaning
2. Component repair
3. Assembly techniques
4. Unit test procedures

VI. Assignments

Reading assignments from textbook and handouts.
Completion of required laboratory activities.

VII. Methods of Evaluating Objectives

1. Objective and written quizzes
2. Midterm examinations
3. Laboratory performance examination (mid term and final)
4. Evaluation of written repair orders
5. Final examination
6. Each activity sheet completed and verified by instructor
7. An **Oral Presentation** may be presented by June 12,2015 as extra credit. This will cover a specific automatic transmission theory, service and repair techniques. *You will confer with your instructor and together we will select a transmission that will be the basis for your report.*
(50-points)

7. Attendance

8. Grading standards:

A = 90 - 100 %

B = 80 - 89 %

C = 70 - 79 %

D = 60 - 69 %

VIII. Texts and Supporting References

Texts:

1. Automatic transmissions and Transaxles
By Tom Birch
ISBN 0-13-262227-0

References:

Manufacturers service manuals as required

IX. Other Related Information

1. Instructor: Rick Maynard
2. Office: E14C
3. Office hour: 12:30 - 1:30 PM
4. Telephone: (408) 864-8704 Office
5. e-mail maynardrick@fhda.edu

X. Calendar

April 6: Start of class

May 15: Mid Term(Written)

May 13, 14: Mid term (Perf)

June 12: Last day for presentation

June 22-25: Performance Finals

June 19: Written Final

June 26: Last day to file for Spring Cert or Degree and Grad Breakfast

Attendance

Just as on the job, regular, punctual attendance is required. Always call in if you are going to be absent. The following limits and conditions apply per department policy:

- A. Students must record attendance on a time card. Punch in prior to 7.30AM (start of class) and out not before 12:10 (end of class).
- B. For each tardy, there is a 1-hour penalty. *7:30AM is tardy.*
- C. Forgetting to punch in or out will constitute a 1-hour penalty.
- D.** Up to 5 hours (each 6 weeks) can be made up providing the student calls in. Missed time cannot be made up if the student does not call in prior to class. Hours not made up will be deducted from total **class** points at the rate of 1% per hour. ***The instructor will specify terms and conditions for make-up.*** The opportunity to make up time is privilege, not a right. If this is abused by your lack of effort during make up, it will be revoked.
- E. Hours must be made up prior to finals week.
- F. Incomplete grades may be given in instances of long-term illness or injury.
- G. To drop without penalty, a drop form must be filed by the date specified in the schedule of classes.

Classroom and Lab Conduct

- A. Students will be dismissed from class for disruptive behavior per college policy.
- B. Wear safety glasses, coveralls, and work shoes for the duration of labs.
- C. All required tools must remain available for lab activities; basic hand tools cannot be checked from the tool room after the first 6 weeks. Spot checks of tools will be made at random.
- D. Students are to remain in assigned areas through cleanup. Punch out on time cards only after cleanup.
- E. There is one 20-minute break between lecture and lab. The instructor will check roll at start of lab. Do not leave campus on break.
- F. It is expected that work will be completed with pride and craftsmanship and that students will perform warranty services if necessary. If overtime is required, consider it the equivalent of homework.
- G. All lab work must be entered on a repair order, estimated, authorized by the customer and initialed by the instructor.
- H. Cell phone must be turned off during all lecture and lab activities.
- I. Hats must be worn straight or not at all.
- J. Do not lie or cover up a mistake. If you break something, it is your duty to tell the instructor so that it can be repaired for the rest of the school to use. You embarrass yourself and your class if someone else finds it.

- And they will.
- K. Coveralls must be kept clean. I will decide if they are clean.
 - L. No ragged edges on your sleeves. If you cut them off, sew them up.

Security

It is understood that the facility and all within is exposed. It is therefore necessary that each and every student assume responsibility for their own security and that of other students and the department. To this end, observe the following guidelines:

- A. Lock your own toolboxes and store them in locked areas.
- B. Watch out for fellow students' tools and secure them as well if necessary.
- C. Do not allow strangers to roam lab areas. Ask questions and secure unattended lab areas.
- D. If you unlock a door or cabinet outside of class time, lock it when done.
- E. Do not enter the tool room unless accompanied by your instructor.

Parking

Parking permits for use in designated areas are available in the Administration Building. Do not park in any shop space. These are reserved for shop activities. Cars parked improperly are subject to citation or will be moved.

Fees

Although periodic adjustments may be necessary, fees and/or deposits are be charged as follows:

- A. \$20.00 deposit on tool checks for the academic year
- B. \$5.00 lab fee added to each Repair Order to cover miscellaneous materials used for repairs
- C. \$5.00 added to each Repair Order to cover haz-mat related expenses
- D. An initial \$3.00 charge for shop towels and \$.75 on each exchange of ten towels.

Repair Orders

5 repair orders will be counted toward your grade. The RO will be turned in by 7:30am the day following the completion of the job. A job finished on Friday can be turned in on Monday by 7:30am. RO's will be graded on a 10 point scale and the total added to your class score. Graded RO's will be returned to you so that you can improve the quality as the class continues.