

**DE ANZA COLLEGE  
AUTOMOTIVE TECHNOLOGY  
A.T. 92B - AUTOMOTIVE ALIGNMENT  
GREEN SHEET**

AUTOMOTIVE TECHNOLOGY 92B

I. Catalog Information

AUTO 92B            Automotive Alignment            5 Units

Prerequisites: Approved Automotive Technology Course  
sequence contract.

Advisory: Math 101, Read 91 and Ewrit 100B or ESL4 or  
LART 100

Ten hours lecture-laboratory per week

One hundred twenty hours lecture-laboratory per  
quarter

Repair, maintenance and troubleshooting of automotive  
Alignment systems.

II. Course Objectives

The student will:

- A. Define the basic design and operation of  
automotive alignment systems.
- B. Classify the different types automotive alignment  
systems.
- C. Describe the industry accepted techniques for  
maintenance, repair and troubleshooting.
- D. Demonstrate the ability to troubleshoot and repair  
these systems.

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. Introduction to automotive alignment systems
  - 1. Theory
  - 2. Service requirements
- B. Front wheel alignment
  - 1. Theory
  - 2. Service techniques
  - 3. Troubleshooting procedures
- C. 4 wheel alignment
  - 1. Theory
  - 2. Service techniques
  - 3. Disassembly, inspection and repair
  - 4. Troubleshooting procedures
- D. Rear wheel alignment
  - 1. Theory
  - 2. Service techniques
  - 3. Disassembly, inspection and repair
  - 4. Troubleshooting procedures

#### VI. Assignments

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

#### VII. Methods of Evaluating Objectives

- A. Satisfactory completion of required course notebook and laboratory activities (200 Pts)  
**Notebooks are due @ 12:10 PM - Friday, February 5<sup>th</sup>!**
- B. Objective and written quizzes (100 Pts)
- C. Midterm examination (200 Pts)
- D. Final examination (200 Pts)
- E. Laboratory performance examination (300 Pts)

VIII. Texts and Supporting References

Texts:

A. Prentice-Hall, *Automotive Chassis Systems 6th ed.*,  
Halderman, Englewood Cliffs, New Jersey

References:

Manufacturers service manuals as required

IX. Other Related Information

1. Instructor: Randy Bryant

2. Office: E14b

3. Office hour: 12:30 - 1:20 and by appointment

4. Telephone: (408) 864-8840 Office

5. E-mail: bryanrandy@fhda.edu

6. Grading standards:

A = 94 - 100 percent

A- = 90 - 93 percent

B+ = 87 - 89 percent

B = 84 - 86 percent

B- = 80 - 83 percent

C+ = 77 - 79 percent

C = 70 - 76 percent

D+ = 67 - 69 percent

D = 64 - 66 percent

D- = 60 - 63 percent

F = 00 - 59 percent

7. *Student Behavior* - Students are expected to abide by the policies listed in the De Anza Winter schedule of Classes 2016. Student behavior, which violates these standards, may be cause for removal from this course. Students should obtain a copy of the "De Anza College Resource Guide", if they desire more information.

8. *Classroom and Laboratory conduct* -

- a. Students will be dismissed from class for disruptive behavior per college policy.
- b. Students will wear safety glasses, coveralls, and work shoes for the duration of lab activity.
- c. Students must have all required hand tools available for lab activity; basic hand tools will not be checked out from the tool room after the first six weeks. Random spot checks of tools will be made.
- d. Students are to remain in assigned areas through clean up. Punch out on time cards only after clean up has been completed. (***Your instructor will determine if clean up is complete!***)
- e. There is one 20 minute break between lecture and lab. Your instructor will check roll at the start of lab activity. Do not leave campus while on break!
- f. It is expected that lab activity will be completed with pride and craftsmanship and that students will perform warranty services. If overtime is required, consider it the equivalent of homework.
- g. All "*LIVE*" lab work must be entered on a repair order, estimated, authorized by the customer and initialed by the instructor.

## 9. 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.
- E. Hours must be made up prior to midterm and 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.
- H. Do NOT ever punch in or out for another student. If I find out that you do, you will have the next day off (5 HRS lost without make-up time).



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***I have read and understand the course outline and  
instructor policies***

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_

Signature: \_\_\_\_\_