

# DE ANZA COLLEGE AUTOMOTIVE TECHNOLOGY 60D GREENSHEET

AUTO D060D95  
CRN 224

IGNITION ANALYSIS & OSCILLOSCOPE DIAGNOSIS

4.5 Units Fall 2015

## General Information:

Instructor: John Walton  
Office Number: (408) 864-8508  
Email: [waltonjohn@fhda.edu](mailto:waltonjohn@fhda.edu)  
Web site: <http://faculty.deanza.fhda.edu/waltonjohn>  
Dates: Tuesday and Thursday  
Hours: 6:00 P.M. to 10:10 P.M.  
Office hours: 5:00 P.M. to 6:00 P.M. Monday-Thursday  
Office location: #E14d in E1 Automotive technology building



## Course Description:

- Ignition system principles of operation and diagnosis
- Use of electronic test equipment in ignition system diagnosis
- Preparation for Automotive Service Excellence (ASE) certification examinations in Areas A6, A8, and L1

## Advisories:

Automotive Technology 50A, 50B, 60, 60A, 60B and 60C  
English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent;

Automotive Technology Website at: [autotech.deanza.fhda.edu](http://autotech.deanza.fhda.edu)

## Course Description:

- Understand major functions of an automotive ignition system
- Ignition system principles of operation and diagnosis.
- Use of electronic test equipment in ignition system diagnosis.
- Develop a practical and comprehensive approach to oscilloscope testing and waveform interpretation
- Troubleshooting ignition related symptoms, systems & components.
- Identify and explain the functions of these components within the ignition system.
- Understand the difference between the primary & secondary system, conventional (DI), distributorless/waste (EI), & coil on plug (COP) ignition.
- Preparation for ASE examinations in areas A6, A8, & L1.  
ASE web site: <http://www.ase.com/>

## Student Learning Outcomes, Student will;

- Identify the purpose of an automotive ignition system.

## Text and References:

60D IGNITION/OSCILLOSCOPE DIAGNOSIS  
Printed Course Syllabus (available from campus bookstore)  
All Data, Shop Key.

## Required Equipment:

Safety glasses

## Grading System:

Graded weekly quizzes, worksheets, participation, & comprehensive final, Safe work practices  
Highest class score = 100%.

## Final Exam

Scheduled for the last class meeting

## Missing Assignments:

The student will complete any missing assignments within 7 days.

**Late assignments are subject to 1 grade penalty**

2 points will be deducted from **ALL** late assignments.

## Attendance:

Students will be dropped for exceeding 2 absences.

## Adds:

**You must add before the current college deadline, late adds are not allowed.**

## Drops:

**If you stop attending the class you will receive an F unless you drop before the current college drop date.**

***Adding or dropping a class is your responsibility.***

|    |           |
|----|-----------|
| A+ | 97 - 100% |
| A  | 94 - 96%  |
| A- | 92 - 93%  |
| B+ | 87 - 91%  |
| B  | 83 - 86%  |
| B- | 80 - 82%  |
| C+ | 75 - 79%  |
| C  | 67 - 74%  |
| D+ | 60 - 66%  |
| D  | 55 - 59%  |
| D- | 50 - 55%  |
| F  | 0 - 49%   |

### **Attendance Policy**

Your attendance is an essential part of this course. By enrolling in this class, you are committing to attend *promptly*. Make-up exams and worksheets will only be available for one week following an absence. If you are going to miss a class or know that you will be late, you must notify me as soon as possible. It is your responsibility to get yourself caught up.

### **Disruptive Behavior**

**A.** DeAnaza College will enforce all policies and procedures set forth in the *Standards of Student Conduct* (see web site, schedule or catalog). Any student disrupting a class may be asked to leave that class. Disruption includes cell phone usage, text messaging and talking to other students during lecture. After administrative review, student may not be allowed to return to class. <http://www.deanza.edu/specialed/dish/appendix/conducts.html>

**B.** No cell phone interruptions – turn cell phones off or to vibrate mode during class.

**C.** No eating, drinking sodas, or chewing tobacco in this classroom.

Register on line or get grades on line at: [www.deanza.edu/](http://www.deanza.edu/)

### **Disability Support Programs & Services (DSP&S)**

If you need any classroom accommodations or services due to a disability, please see me after class. A verification of your disability must be on file with the college. <http://www.deanza.edu/specialed/dss/>

For information on learning disabilities, call or visit the Educational Diagnostic Center, Learning Center West 110, 408-864-8839. For information on others disabilities, call or visit Disability Support Services, Seminar 2A, 408-864-8753.

### **Safety Policy**

*Safety glasses AND shoes are to be worn at all times during any lab work or demonstration.*

|                          |                    |
|--------------------------|--------------------|
| Course CRN               | 00224              |
| Credit Hours             | 4.5                |
| Last Day for Adds        | September 23, 2015 |
| Census Date              | September 24, 2015 |
| Last Day for Refund      | September 22, 2015 |
| Last Day for Drops w/o W | September 23, 2015 |
| Last Day for Drops       | October 20, 2015   |

- Financial Aid: Lisa Mandy: Director (408) 864- 8403 [mandylisa@fhda.edu](mailto:mandylisa@fhda.edu)
- Certificates and degrees: <http://www.deanza.edu/counseling/pdf/degrees/auto-technician.pdf>
- Scholarship Information available in financial aid or at <http://www.deanza.edu/financialaid/scholarship.html>

Register on line or get grades on line at: [www.deanza.edu/](http://www.deanza.edu/)

## Suggested Auto Tech Schedule

| 1st Year Engine Performance   |       |      |  |
|---|-------|------|--|
|   | UNITS | Days |  |
| <b>Fall Quarter</b>   |       |      |  |
| 12 weeks  | 9     | M/W  | Auto 60 Automotive Electrical Systems                    |
| <b>Winter Quarter</b>   |       |      |  |
| 1st 6 weeks   | 4.5   | M/W  | Auto 60A Electrical Schematic Diagnosis                  |
| 2nd 6 weeks   | 4.5   | M/W  | Auto 60B Automotive Electronics                          |
| 12 weeks  | 3     | T/TH | Auto 53A Automotive Mechanisms                           |
| <b>Spring Quarter</b>   |       |      |  |
| 12 weeks  | 9     | M/W  | Auto 60C Automotive Ignition, Fuel, and Emission Systems |
| First year auto tech courses are available Monday and Wednesday Evenings from 6PM to 10:15PM  |       |      |  |
| 2nd Year Advanced Engine Performance  |       |      |  |
|   | UNITS | Days |  |
| <b>Fall Quarter</b>   |       |      |  |
| 1st 6 weeks   | 4.5   | T/TH | Auto 60 D Ignition Analysis and Oscilloscope Diagnosis   |
| 2nd 6 weeks   | 4.5   | T/TH | Auto 60E Automotive Fuel Injection                       |
| <b>Winter Quarter</b>   |       |      |  |
| 1st 6 weeks   | 4.5   | T/TH | Auto 60F No Start Diagnosis                              |
| 2nd 6 weeks   | 4.5   | T/TH | Auto 60C Advanced Automotive Scan Tool Diagnosis         |
| <b>Spring Quarter</b>   |       |      |  |
| 1st 6 weeks   | 4.5   | T/TH | Auto 60H Advanced Drivability and Onboard Diagnosis      |
| 2nd 6 weeks   | 4.5   | T/TH | Auto 60J Advanced Lab Scope and Waveform Diagnosis       |
| Second year auto tech courses are available Tuesday and Thursday Evenings from 6PM to 10:15PM |       |      |  |

Degrees and  
Certificates

Auto 53A, 60, 60A, & 60B  
Certificate of Achievement  
**Basic Engine  
Performance Technology**  
(21 Units, GE not required)

Auto 60C, 60D, & 60E  
Certificate of Achievement  
**Intermediate Engine  
Performance Technology**  
(18 units, GE not required)

Auto 60F, 60G, 60H, & 60J  
Certificate of Achievement  
**Advanced Engine  
Performance Technology**  
(18 Units GE not required)

Complete all of the 57 units above to receive:  
**Certificate of Achievement Advanced  
Performance Technology \***  
\* Math and English Eligibility Requirements

Add: GE (31-42 units) and receive:  
A.S. Degree  
**Advanced Engine  
Performance Technology**

Certificate of Achievement Advanced:  
Advanced Engine Performance Technology

Associate of Science Degree:  
Advanced Engine Performance Technology