

# DE ANZA COLLEGE ELECTRIC VEHICLE TECHNOLOGY

AT67B

Plug In Electric Vehicles

4.5 UNITS Spring 2016

## General Information:

Instructor: John Walton  
Phone Number: (408) 864-8508  
Email: [waltonjohn@fhda.edu](mailto:waltonjohn@fhda.edu)  
Web site: <http://faculty.deanza.fhda.edu/waltonjohn>  
Dates: Tuesday and Thursday  
Class Hours: 1:30 P.M. - 3:30 P.M.  
Office Hours: 5:00PM - 6:00PM, Monday through Thursday  
Office location: #E14d in E1 Automotive technology building

## Advisories:

Advisory: 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 67A.

## Course Description:

Understanding the functions of plug in electric vehicles and hybrid extended range electric vehicles. Operating characteristics of high voltage on board charging systems. charging stations, photo voltaic systems, and electrical grid charging. Operation of on board smart charging systems. Economics of electric transportation, utility company systems, and existing options such as off peak charging. Understanding the use of electric power as applicable to extended range electric vehicle transportation. Utilization of applicable diagnostic and service equipment. Electric vehicle theory of operation. Advantages of an electric drive train. Electric vehicle history and current status of plug in electric vehicle technologies. Career possibilities in the electric transportation industry. Safety procedures and maintenance of plug in electric vehicles.

## Student Learning Outcome:

Demonstrates the ability to maintain and service a vehicle that uses a high voltage battery as a fuel source for the main propulsion.

## Text:

Published course materials/syllabus available from campus bookstore or free PDF download from course studio

## Equipment:

**Safety glasses**, notebook

## Grading System:

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

Final Exam is scheduled for the last class session

## 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.** De Anza 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.

## **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. 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.

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

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## **Safety Policy**

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

- **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>

Course CRN	42986
Credit Hours	4.5
Last Day for Adds	April 18, 2015
Last Day for Refund	April 19, 2015
Last Day for Drops w/o W	April 19, 2015
Last Day for Drops	May 29, 2015

## Suggested Auto Tech Schedule

*Certificates*

### Courses Required for Smog Technician

	Spring Quarter	UNITS	Days
12 weeks	Auto 60C Automotive Ignition, Fuel, and Emission Systems	9	M/W
	Fall Quarter		
12 weeks	Auto 65P Clean Air Course (BAR Level 1 Training)	7	M/W
12 weeks	Auto 65W Advanced Clean Air Car Course (BAR Level 2 Training)	2.5	M/W

Auto 60C, 65P, 65W  
**Certificate of Achievement**  
**Smog Technician**  
 (18.5 Units, GE not required)

### Courses Required for Advanced Automotive Technician

	Summer Quarter	UNITS	Days
6 weeks	Auto 60K Advanced Body Electrical	4.5	T/TH
	Spring or Summer Quarter		
6 weeks	Auto 66 Automotive Air Conditioning	4.5	T/TH
8 weeks	Auto 67B Plug-In Electric Vehicle Technology	4.5	M/W
	Fall Quarter		
6 weeks	Auto 67J Intro Automotive & Light Truck Diesel Systems	4.5	T/TH

Auto 64, & 64HP  
**Certificate of Achievement**  
**Advanced Automotive Technician**  
 (18 Units, GE not required)