Winter 2015
Section # 30343 12:30pm-2:20pm TTH
Instructor: Michael McCart
Office Phone # 408-864-8376 (during office hours)
E-mail mccartmichael@deanza.edu (best way to communicate)
Class meetings: Jan. 5 – Mar. 27
Classroom: G8
Office hours Instructor’s office hours will be 5-6 PM, MTWTh in office E14A.
Automotive website http://www.deanza.edu/autotech/

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.

Four hours lecture-laboratory per week (equal to forty-eight hours lecture per quarter).

Final Exam Tuesday, March 24, 11:30-1:30pm
Time change to 12:30 in the Auto Shop

Student Learning Outcomes
Demonstrate the ability to diagram and construct simple electromechanical circuits, calculating and measuring voltage, amperage, and resistance using Ohm's Law and a digital multimeter.

Develop a testing sequence to diagnose open, shorted, and grounded electromechanical circuits.

Disruptive Behavior
A. De Anza College will enforce all policies and procedures set forth in the Standards of Student Conduct (see catalog). Any student disrupting a class may be asked to leave that class. After administrative review, the instructor may drop the student from the class.
B. Repeated cell phone interruptions will not be tolerated. Turn cell phones off during class and keep them in your backpacks.
C. There will be no eating, drinks, or chewing tobacco or gum in this classroom.
D. Smoking in designated areas only.

Attendance Students will be dropped after two or more absences.

IMPORTANT NOTICE
NONE OF THE EXAMINATIONS OR THE LABORATORY EVALUATIONS MAY BE MADE UP UNLESS PRIOR AUTHORIZATION IS ARRANGED WITH THE INSTRUCTOR. OTHER LATEWORK WILL BE LOWERED EVERY CLASS IT IS LATE ONE WHOLE GRADE.
Auto 53B
We will cover electrical theories, testing and measuring procedures, circuit construction and schematic interpretation. Students will apply the principles of magnetism in automotive applications. Understand the operation of semiconductors in electronic devices and controls.

Required equipment
B. Scientific calculator (not your cell phone)
C. Safety glasses for classroom lab demonstrations and at all times when in the shops
D. Notebook and pencil

Course Objectives
A. Electrical safety
B. Comprehend simple electrical circuits and ohm’s law
C. Use analogical reasoning to solve series, parallel and series-parallel circuits
D. Operate circuit testers and digital meters
E. Evaluate wires, connectors and wiring schematics
F. Critique battery testing methods
G. Recognize starting and charging systems components
H. Appraise alternators and starters functionality
I. Assess lights, blower motor, horn, and accessory circuits
J. Identify on-board diagnostic and computer control

Methods of Evaluating Objectives
A. Accuracy of data
B. Completeness of assignment
C. Number of correct answers on multiple choice quizzes and tests

Required reading prior to class
Week 1 Chapter 1
Week 2 Chapters 4 and 5
Week 3 Chapters 6 and 7
Week 4 Chapters 15 and 16
Week 5 Chapters 17, 18, 19 and 20
Week 7 Chapters 8 and 9
Week 9 Chapters 21, 23 and 24
Week 10 Chapters 13 and 27

Classroom worksheets
Week 1 1 Math review
Week 2 2 Series parallel circuits
Week 3 3 Ohm’s Law
Week 4 4 DVOM and LED
Week 9 6 Circuit tracing
Lab activities
Week 5    A  Vantage
Week 7    B  Circuit testing DVOM
Week 7    C  Batteries
Week 7    D  Charging system
Week 7    E  Starters
Week 8    F  Connector and wiring
Week 10   G  Computer & Diagnosis

Quizzes are on Thursdays
Week 1    Math review (first day)
Week 2    Safety test
Week 3    Chapters 4, 5, 6 and 7
Week 8    Chapters 8, 9

Tests
Week 6    Midterm
Week 12   Final

Grading
Safety test 30
Quizzes 2  2 at 70 points 140
Worksheets 6 at 15 points 90
Activities 7 at 15 points 105
Midterm 100
Performance 10
Final 125

Total 600

Grade definitions are as follows:
Evaluative Symbols, Percentages and Grade Points

<table>
<thead>
<tr>
<th>Points</th>
<th>Letter grade</th>
<th>Percentage</th>
<th>Grade points</th>
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<tbody>
<tr>
<td>576-600</td>
<td>A+ Excellent</td>
<td>96-100%</td>
<td>4.0</td>
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<tr>
<td>540-575</td>
<td>A Excellent</td>
<td>90-95.9%</td>
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<tr>
<td>520-539</td>
<td>A- Excellent</td>
<td>86.6-89.9%</td>
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<tr>
<td>500-519</td>
<td>B+ Good</td>
<td>83.3-86.5%</td>
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<td>480-499</td>
<td>B Good</td>
<td>80-83.2%</td>
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<tr>
<td>460-479</td>
<td>B- Good</td>
<td>76.6-79.9%</td>
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<td>440-459</td>
<td>C+ Satisfactory</td>
<td>73.3-76.5%</td>
<td>2.3</td>
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<tr>
<td>420-439</td>
<td>C Satisfactory</td>
<td>70-73.2%</td>
<td>2.0</td>
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<tr>
<td>390-419</td>
<td>D+ Passing, less than satisfactory</td>
<td>65-69.9%</td>
<td>1.3</td>
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<tr>
<td>360-389</td>
<td>D Passing, less than satisfactory</td>
<td>60-64.9%</td>
<td>1.0</td>
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<tr>
<td>340-359</td>
<td>D- Passing, less than satisfactory</td>
<td>56.6-59.9</td>
<td>0.7</td>
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<tr>
<td>Below 339</td>
<td>F Failing</td>
<td>Below 56.6</td>
<td>0.0</td>
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*This schedule is subject to change without notice* It is intended to be a general guide during the quarter. The schedule and procedures for this course are subject to change at the discretion of the instructor.