

IMPERIAL VALLEY COLLEGE

Fall 2014

Auto130

Automotive Electronics

Instructor: Jose Perez

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Lecture/Discussion M 06:30-09:40

Room: 1102

Lecture/Discussion W 06:30-08:35

Room: 1103

Classes Begin: Aug. 18 2014

Classes end: Dec. 13 2014

Textbook and Workbook:

Modern Automotive Technology by James E. Duffy

7th Edition

Course Description:

Upon successful completion of this course, the student will be able to:

State the basics of the electron theory of electricity

Employ ohms law in troubleshooting electrical circuits

Recognize the effect of electronics on automotive advances

Give two methods of rating battery performance

Describe how the starting system works

Give examples of possible causes of starting system problems

Explain the principal of electromagnetic induction

Name the major components of an alternator

Give quick checks for solving charging system problems

Explain how the different types of ignition systems operate

RESPONSABILITIES:

Each student is required to comply with the schedule established by Imperial Valley College and the Automotive Program. Students should attend class each day class is in session. If for reasons a student is absent s/he is responsible for making up any missed work. It is recommended that students call the office to inform the instructor if s/he is ill or bring a doctor's release not

3 tardies = 1 absence

4 absences = Student will be dropped or given an "IN" INCOMPLETE

WELCOME STUDENTS WITH DISABILITIES

Students with a documented disability who may need additional accommodations should notify the instructor and or The Disabled Student Program and Services (DSP&S) office as soon as possible. The DSP&S office is located in room 2117 in The Health Sciences Building or you may contact them at (760) 355-6312.

BASIC RULES AND SHOP SAFETY

No music allowed in the auto shop

No parking in front of the gate

No work should be done without instructor's permission

No parking inside the shop during lecture time

No long breaks (should be 10 minutes per hour class)

Each student should clean the work area

The student must not leave early without instructor's permission

No cell phone during class sessions

No helpers or visitors during lab activities

Safety glasses required

FALL 2014 IMPORTANT DATES

Aug. 18 – Fall 2014 Classes Begin

Sept. 1 – Labor Day (Campus Closed)

Nov. 11 – Veterans Day (Campus Closed)

Nov. 24-26 No classes (Campus Open)

Nov. 27-29 Thanksgiving (Campus Closed)

Dec. 13 Fall 2014 Term Ends

Dec. 15-19 No Classes (Campus Open)

Dec. 22-31 Winter Recess (Campus Closed)

INSTITUTIONAL STUDENT LEARNING OUTCOMES (ISLO)

Student Learning Outcomes are written statements that represent faculty and departmental learning goals for students. After successful completion of the program or degree at Imperial Valley College, students are expected to have measurable improvement in the following areas:

- ISLO 1: Communication Skills
- ISLO 2: Critical Thinking Skills
- ISLO 3: Personal Responsibility
- ISLO 4: Information Literacy
- ISLO 5: Global Awareness

AUTO 130

Automotive Electronics 1

OBJECTIVES

Week 1 Class Orientation, review of safety procedures, review of tools and equipment.

Week 2&3 Basic Electricity and Electronics – Chapter 8

Week 4 Basic Electrical Tests, Meters, Testers, and Analyzers – Chapter 8

Week 5 Automotive Batteries – Chapter 28

Week 6 Battery Testing – Chapter 29

Week 7&8 Starting System Fundamentals, Testing and Repair – Chapters 30 & 31

Week 9 Mid-term

Week 10&11 Charging System Fundamentals – Chapter 32

Week 12&13 Charging System Diagnosis, Testing, and Repair – 33

Week 14 Ignition System Fundamentals – Chapter 34

Week 15 Electrical/Electronic systems ASE questions

Week 16 Final Exam

LECTURE IS SUBJECT TO CHANGES

GRADING SYSTEM:

There will be a mid-term and a final exam. Each will be worth 25% of your grade. The mid-term will have 50 ASE type questions. The final exam will have 100 ASE type questions. Quizzes will make up 25% of your grade. The last 25% of your grade will be on projects assigned as part of the lab section of class.

Percentages:

25% Completed Assignments

25% Quizzes

25% Mid-term exam

25% Final Exam

100%

Grading Scale:

100-90% A

89-80% B

79-70% C

69-60% D

59-50% F

