



IMPERIAL VALLEY COLLEGE

SPRING 2014

SYLLABUS

Course Information

Course Title

Electrical Principles (4 units)

Course Number

EWIR 110

Course Discipline

Teacher Education

Course Description

This course will provide students with instruction on electrical safety, fundamental electrical principles, electrical symbols, Ohms law, voltage drop, electrical test equipment, conductors, boxes and fittings, electrical blueprints and schematics used in residential, commercial, and industrial wiring, with a specific focus on residential wiring. All instruction will be based on the national electrical codes (NEC 2014).

Course Objectives

(1) demonstrate and practice safety rules; (2) interpret electrical principles, symbols, calculate resistance, current, voltage, and voltage-drop, used Ohms Law formulas; (3) learn how to properly handle electrical test equipment; (4) select proper electrical fittings; (5) interpret basic electrical blueprints and schematics; and (6) different methods of troubleshooting.

SLO Learn to obey supervisor instruction in the Worksite relative about course objectives on the follow schedule; Basic Safety Rules, PPE,read Blueprints,calculations of Voltage Drop,Ohms Law Applications,good handle of Electrical Test Equipment in troubleshooting and others,set-up boxes and fittings and Electrical materials for any job.

Prerequisites None

Grading Policies and Procedures Assignments and reviews must be completed by their due date or they will receive no credit. You will be informed of the points earned on each assignment or review. Extra credit will be available for certain reading or investigations. Midterm and final exams will be largely based on workbook assignments and review tests. Shop practices will be supervised to ensure Basic Safety compliance.

Grades Below is the grading scale:

Homework:	10%
Shop practices:	30%
Midterm:	30%
Final:	<u>30%</u>
	100%

Additional Information There are a total of 100 points available for this course. If you are taking the course pass/fail, you will

need a minimum of 70 points to pass. No cell phones, no food during class, no music, no horseplay in shop practices. Students can be disciplined if they are found cheating, disturbing others, or are disrespectful in class. Inappropriate language in class is not permitted.

Textbook

Modern Residential Wiring
Workbook
By: Harvey N. Holzman
(Based on the NEC 2011 or 2014)

Recommended Books

Safe Work Practices for the
Electrical by Ray A. Jones and Jane
G. Jones

Illustrated Guide to the NEC code
4th edition by Charles R. Miller

National Electrical Code Edition
2011

Instructor Information

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