



# IMPERIAL VALLEY COLLEGE

**SPRING 2013**

## **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 2011).

### Course Objectives

(1) demonstrate and practice safety rules; (2) interpret electrical principles, symbols, calculate resistance, current, voltage, and voltage-drop used in OHMS 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.

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 safety compliance.
Grades	Below is the grading scale:  Homework: 10% Shop practices: 30% Midterm: 30% Final: <u>30%</u> 100%
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.
Additional Information	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 (Base on the NEC 2011)

## 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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