

# IMPERIAL VALLEY COLLEGE

## Course Syllabus

**EWIR 110**

**Electrical Principles**

**4 Units**

**M & 8am-10:05am (Lec) Bldg 3100, Room 3113 Frances: (760) 355-6361**

**W 10:15-12:20pm (Lab ) Bldg 3100, Room 3113**

**Spring 2017**

**Instructors: Jose (Joe) Roman**

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**Office Phone: (760) 355-5719**

**Required Text: Modern Residential Wiring** Based on the 2014 NEC, 10<sup>th</sup> Edition (Book & Workbook), Harvey N. Holzman.

Recommended text: National Electric Code Softbound 2014 Edition (NFPA 70)

### **Course Description:**

This Course is designed to introduce students to a comprehensive study of basic principles of electrical safety. Topics will include electrical theory, tools, test equipment, blueprints that include residential/commercial/industrial symbols, diagrams, schematic used for residential wiring, NEC, NEC boxes, fittings and conductors, branch circuits and feeders, electrical service, wiring methods and materials, equipment for general use, conductors and over current protection.

### **Course Objectives:** (*Learning Goals*)

To understand, define, and identify the basic principles and methods of electrical wiring installation, conductor installations, cable supports, NEC termination requirements, and protection application.

### **Classroom and Laboratory Rules:**

No food is allowed in the classroom. Bottled water is authorized during lectures and lab. Cell phones must be placed in "manner mode" or turned off.

### **Grading Policy:**

The student's grade will be determined by the total number of points earned from each tests, (this include Chapt. tests, midterm, and final exam) review assignments and lab activities. Below you will find the basis for grading:

Exams	550 points
Assignments	250 points
Lab activities	250 points
<b>Attendance</b>	<b>*150 points</b>
<b>Total Points</b>	<b>1200</b>

1200-1080	=	A
1079-960	=	B
959-840	=	C
839-720	=	D

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**Examination Policy:**

All exams are mandatory! The exams will include multiple choice and (maybe-true/false answers & fill-in). Each exam will cover material presented in class, and be reviewed prior to each exam. **MISSED EXAMS WILL NOT BE ALLOWED TO BE MADE UP!**

**Note: If I allow you to make-up an exam a 10% will be deducted on your grade.**

Cheating on exam and/or plagiarizing will lead to a "Zero" for the test/assignment, and may lead to dismissal from the class.

**Attendance Policy:**

Class attendance policy follows the regulations in the IVC catalog. Students who receive **three absences** *will be dropped from the course unless prior arrangement has been made with instructor*. Three tardiness shall constitute one absence. Students who fail to return from break shall be marked absent for that session.

**\*Participation- This course will meet two days per week of classroom and lab.**

**Therefore, class participation and lab will be part of your grade for this semester.**

**Disabled Student Program & Services (DSPS):**

IVC catalog policy follows the regulation of Section 504 of the Rehabilitation Act and the (ADA) Americans with Disabilities Act. Services are provided to students with reasonable accommodations to students with mobility, hearing, speech, and orthopedic impairments, learning disabilities, psychological disabilities, and other health impairments. Services are provided on an individual basis and may include reader services, note taking, tutoring, counseling, sign language interpreting, priority registration, learning disabilities assessment, and adapted computer instruction. **Note:** visual and color blind may be an electrical safety hazard for the individual who cannot determine or identifying the color code for wiring as part of the National Electrical Code (NEC) electrical safety requirements, and Occupational Safety and Health Administration (OSHA).

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# Descriptive Course Outline

## EWIR 110 Spring 17'

<u>Week #</u>	<u>Monday</u>	<u>Wednesday</u>
1 (2/13-2/15)	Intro. to Class; Safety Video Assignment About You!	<u>Chapter 1 -Safety</u> Example of Lab & Assignment Safety Video
2 ( <u>2/20</u> -2/22)	<b>NO CLASS</b>	Cont. Chapt. 1-Safety Lab-wire color code Chapt.1-Assign & Workbook
3 (2/27-3/1)	Review for Test #1 Lab-Review wire color <b><u>Get Lab partner due Weds.</u></b>	Review for Test #1 Lab-Review Switches <b><u>Chapter 3-Tools Intro</u></b> Chapt. 3-Assign & Workbook
4 (3/6-3/8)	<b>Test #1-Safety Assn. #1 Due</b> Lab-Wire connection w/tools <b><u>Lab partner due</u></b>	Review for Test #2 <b>1<sup>st</sup>- Lab project</b>
5 (3/13-3/15)	Review for Test #2 Cont. Lab #1 project	<b>Test #2-Tools Assn. #2 Due</b> <b><u>Chapt. 5-Conductors</u></b> Chapt.5- Assign & Workbook
6 (3/20-3/22)	Review for Test #3 Lab #3/4 project	<b>Test #3-Conductors Assn. #3 Due</b> <b><u>Chapt.7-Device Wiring</u></b> Chapt.7- Assign & Workbook
7 (3/27-3/29)	Review Chapt. 7 Review for Test #4 Cont. Lab #3/4 project	<b>Test #4-Device Wiring Assn. #4 Due</b> <b><u>Chapt.2-Electrical Energy</u></b> NO LAB
8 (4/3-4/5)	Review Chapt. 2 Review for Test #5 NO LAB	<b>Test #5-Electrical Energy</b> Review Midterm NO LAB

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<b><u>Week #</u></b>	<b><u>Tuesday</u></b>	<b><u>Thursday</u></b>
<b>9</b> (4/10-10/12)	Review Midterm NO LAB	<b>Midterm</b> NO LAB
<b>10</b> ( <u>4/17-4/19</u> )	<b>CLASS CLOSED</b>  <b>SPRING BREAK</b>	
<b>11</b> (4/24-4/26)	Review for Chapt.6 <b>Assn. #6 &amp; 7 Due</b> Lab #6 project	<b>Test #6-Boxes</b> <b>Assn. #6 Due</b> <b><u>Chapt. #8 &amp; 9</u></b> Chapt.8/9-Assign/Workbk
<b>12</b> (5/1-5/3)	Review for Ch.8&9 Lab #7/8 project	<b>Test #7&amp;8</b> <b>Assn. #7&amp;8 Due</b> <b><u>Chapt. 10-Service Entr.</u></b> Chapt.10-Assign/Workbk
<b>13</b> (5/8-5/10)	Cont. for Ch.10 Lab #8/9 project	Review for Ch.10 Lab #8/9 project
<b>14</b> (5/15-5/17)	<b><u>Test #9-Service Entr.</u></b> <b>Assn. #9- Due</b> Chapt.4-Assign/Workbk	Review for Ch.4 Lab #9/10 project
<b>15</b> (5/22-5/24)	<b>Test #10-Wiring Sys</b> <b>Assn. #10 Due</b> Lab #9/10 project	
<b>16</b> ( <u>5/29</u> -5/31)	Review final <b>Final Lab project</b>	Cont. review final <b>Final Lab project</b>
<b>17</b> ( <u>6/5-6/7</u> )	Cont. review final	<b><u>Final Exam!!!!</u></b>

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Dear Student,

This is my Seventh year as an Instructor at Imperial Valley College, Part-time. & this year, I will teach (Temporarily) Full-time for the Fall 16' & Spring 17' semester. I'm Alumni at IVC & I hold a Bachelor's Degree in Landscape Architecture & Construction from the California State Polytechnic, Pomona, University and I have been teaching since 1995. I recently retired from teaching in Correction for 18 state service years. I am certified Electrician & hold a Professional Clear Single Subject Teaching credential for 18 years. I have been in the Electrical trade since 1988 & I was teaching last year part-time at Arizona Western College at Yuma, Arizona.

My wife (of 25 years) and I are parents of two grown children. 1 preteen younger son. For pleasure, I enjoy, exercise, bicycling, electrical work and reading.

I will work very hard to make your learning experience a success. I expect all of the students who take my courses to also work very hard. Together, we will accomplish the goals before us which is **PASS THIS CLASS!**

It is your responsibility to learn the material. It is my responsibility to make the learning process as productive and interesting as possible. If you miss a class, check with other class members to determine what work you must do. Tests are like job interviews, scheduled in advance; treat them as such. Do not miss a test! If you must miss a test, be sure that I know about your need **as soon as practical**.

Being a student is not easy! It is hard work, especially with families and jobs. Plan time to be in class, as well as time to work on the out of class assignments. If I can be of assistance, please contact me.

My IVC e-mail address is: [jose.roman@imperial.edu](mailto:jose.roman@imperial.edu). I check my e-mail continually during the day. Call Frances & leave message if you have computer problems at (760) 355-6361.

Have a successful class.

*Joe Roman*