



## Basic Course Information

Semester:	<b>SPRING 26</b>	Instructor Name:	<b>Javier Soto</b>
Course Title & #:	<b>EWIR 135</b>	Email:	<b>Javier.soto@imperial.edu</b>
CRN #:	<b>20437</b>	Webpage (optional):	
Classroom:	<b>3113</b>	Office #:	<b>3121</b>
Class Dates:	<b>2/18/26 – 6/10/26</b>	Office Hours:	<b>T/Th 2:00pm – 4:00pm</b>
Class Days:	<b>M/W</b>	Office Phone #:	
Class Times:	8:00am – 12:25pm	Emergency Contact:	<b>Tisha Nelson 760-355-6361</b>
Units:	4	Class Format/Modality:	Face to Face

## Course Description

This course provides the electrical worker with instruction in basic lighting and NEC requirements for lighting fixtures for indoor and outdoor use; an introduction to motor basics, calculations, transformers, instruments for testing, wiring, protection, maintenance, and troubleshooting for various types of motors and motor controls; introduction to heating, ventilation, and air-conditioning (HVAC) systems, system maintenance equipment, and safety requirements for varied locations; principles of combustion, hazardous materials and their reactions in varied locations; and the use of safety equipment.

## Course Prerequisite(s) and/or Corequisite(s)

N/A

## Student Learning Outcomes

*Design and describe the installation of an electrical power distribution system for a farm, including the loads and circuits required for various farm buildings and operations.*

*Demonstrate familiarity with NEC requirements for mobile home park electric service and wiring, mobile home circuit loads, and code requirements for motorhomes.*

*List the rules for bonding metal fixtures and parts around swimming pools, explain grounding requirements for swimming pool wiring, and demonstrate wiring techniques required for the installation and wiring of underwater lighting fixtures.*

*Demonstrate wiring techniques for installing telephone and computer cabling in new and existing dwellings, discuss the installation and operation of standby power systems, transfer switches, and uninterruptible power supplies.*

## Course Objectives

1.

*Demonstrate and practice electrical safety.*

*Interpret lighting layouts and fixtures schedules on commercial and industrial blueprints.*

*Design and install motor-control circuits for specific applications per NEC.*

*Calculate and install devices to improve the power factor at motor locations.*

*Select the correct instrumentation and perform motor and generator testing, including collecting and recording pertinent data.*

*Troubleshoot HVAC systems and motors; control equipment and HVAC systems.*

*Select and install motors and wiring for specific hazardous locations.*

### **Textbooks & Other Resources or Links**

Pearson NCCER ELECTRICAL 2023 update LEVEL 4 11<sup>th</sup> Edition ISBN: 13: 978-0-13-8176211

### **Course Requirements and Instructional Methods**

*Computer , LAB, Video, Lecture*

### **Course Grading Based on Course Objectives**

*Letter Grade*

*The course grade is based on total points accumulated during the semester. There is a maximum of 1200 points. Very limited extra credit points may be available, either through some class participation activity, group work or perfect attendance. Failing to turn in regular assignments will stop you from being able to earn extra credit points and late assignments will have points subtracted. Final Grades are calculated as follows:*

*Below is the Instructional Scale:*

*Grade breakdown is subject to change Breakdown (1690 points)*

- *Exams: 390 Pts*
- *Midterm/Final: 500 Pts*
- *Lab activities: 700 Pts.*
- *Participation: 100 Pts.*
- *Total points 1690pts.*

Updated 11/2024

## Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

## Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

## Course Policies

- *A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.*
- *Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.*
- *Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences. What does it mean to "attend" an online class?*

### Academic Honesty

*Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the importance of acknowledging and safeguarding intellectual property. Imperial*

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## Other Course Information



• **CANVAS LMS:** Canvas is Imperial Valley College’s main Learning Management System. To log onto Canvas, use the link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. **Additionally, a 24/7 Canvas Support Hotline is available for students to use: (877) 893-9853.**

• You may consult your college map for the **Reading and Writing Lab, Study Skills Center and/or Library**

• **Library Services:** As you know there is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

### Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at [finaid@imperial.edu](mailto:finaid@imperial.edu).

### IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

### Anticipated Class Schedule/Calendar

*[Provide a tentative overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format as in the example below may be used for this purpose.]*

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 2/18/26	Syllabus Review / Safety Video	
Week 2 2/23/26	Chapter 1 Review Quiz 1 ( 40 Points ) Lab 50 Points	
Week 3 3/2/26	Chapter 2 review Quiz 2 ( 30 Points ) Lab 50 Points	
Week 4 3/9/26	Chapter 3 Review Quiz 3 ( 30 Points ) Lab 50 Points	
Week 5 3/16/26	Chapter 4 Review Quiz 4 ( 30 Points ) Lab 50 Points	



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<b>Date or Week</b>	<b>Activity, Assignment, and/or Topic</b>	<b>Pages/ Due Dates/Tests</b>
Week 6 3/23/17	Chapter 5 review Quiz 5 ( 40 Points ) Lab 50 Points	
Week 7 3/30/26	Chapter 6 Review Quiz 6 ( 30 Points ) Lab 50 Points	
Week 8 4/6/26	<b>NO SCHOOL SPRING BREAK</b>	
Week 9 4/13/26	<b>MIDTERM 250 Points</b> Lab 50 Points	
Week 10 4/20/26	Chapter 7 Review Quiz 7 ( 40 Points ) Lab 50 Points	
Week 11 4/27/26	Chapter 8 review Quiz 8 ( 40 Points ) Lab 50 Points	
Week 12 5/4/26	Chapter 9 Review Quiz 9 ( 30 Points ) Lab 50 Points	
Week 13 5/11/26	Chapter 10 review Quiz 10 ( 30 Points ) Lab 50 Points	
Week 14 5/18/26	Chapter 11 review Quiz 11 ( 20 Points ) Lab 50 Points	
Week 15 5/27/26	No Class 5/25/26 Lab 50 Points	
Week 16 6/1/26	Chapter 12 review Quiz 12 ( 30 points ) Lab 50 Points	



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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 17 6/8/26	FINALS 250 POINTS	

**\*\*\*Subject to change without prior notice\*\*\***