IMPERIAL VALLEY COLLEGE

Note to Instructor: Replace the placeholder text beneath the headings with the appropriate information for your course. Please note that all sections, with the exception of "Other Course Information," are required elements.

Basic Course Information

Semester:	**Fall 2023**	Instructor Name:	**Hector Salcedo**
Course Title & #:	**Electrical Trades 103**	Email:	**Hhsalcedo @iid.com**
CRN #:	**10985**	Webpage (optional):	**NA**
Classroom:	**LQ Foreman's Room**	Office #:	**(760) 791-4521**
Class Dates:	**Aug 16 – Dec 6, 2023**	Office Hours:	**4:00pm – 8:30pm**
Class Days:	**Tuesdays**	Office Phone #:	**Same as above**
Class Times:	4:00pm – 8:15pm	Emergency Contact:	**Miriam Larson 760-427-9107**
Units:	4	Class Format/Modality:	In Person

Course Description

An introduction to framing, setting, guying poles, installation of conductors and grounds, and the laying out and constructing of an underground line system. (Nontransferable, AA/AS degree only)

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

Successful completion of ELTT102 with a "C" of better.

Student Learning Outcomes

Interpret, summarize and recognize industry rules, regulations, safety standards and underground residential distribution system.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Practice standard safety procedures appropriate to the power utility industry.
2. Recognize and deal appropriately with hazardous materials in the power utility industry.
3. Assemble and install crossarms, pins, and insulators.
4. Demonstrate the procedures for splicing, sagging, and tying in conductors.
5. Unload, frame, and haul poles in a safe manner.
6. Demonstrate the method of splicing and pulling cable.
7. Recognize and explain safe manhole/vault construction practices.
8. Demonstrate basic knowledge in underground residential systems.

Textbooks & Other Resources or Links

Electrical Lineman Training Committee. 1990. *Imperial Irrigation District's Lineman Apprenticeship Training Program Handbook*. Imperial Irrigation District. ISBN: -.

Shoemaker, Thomas M and James E. Mack. 2017. *The Lineman's and Cableman's Handbook*. 13th McGraw-Hill. ISBN: 978-0071850032.

Alexander Publications. 2007. *Transformation for Lineworkers*. 2nd Edition Alexander. ISBN: .

Michael I. Callanan and Bill Wusinich. 2017. *Electrical Systems: Based on the 2017 NEC*. 1st American Technical Publishers. ISBN:

978082692034.

Consumers Energy. 2008. *Fundamentals of Electricity Basic Principles Volume 1*. Alexander Publications. ISBN: .

Consumers Energy. 2008. *Fundamentals of Electricity Volume 2 Alternating Current*. Alexander Publications. ISBN: .

Course Assignments and Instructional Methods

Assignments are designed to elicit your demonstration of critical thinking, understanding and application of the course concepts, and your proficiency in the subject matter.

Required Activities or Assignments

1. Midterm (1)	50 each
2. Final Exam (1)	100 each
3. Homework (TBD)	10 each
4. Participation (possible extra credit points	TBD

Course Grading Based on Course Objectives

The course grade is based on total points accumulated during the semester. There is a maximum of 450 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:

Percentage	Grade
90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Grading Rubrics: In addition to the percentages and points listed above the following grading rubric (standards expected) will be used when grading student assignments. The description that best fits your work will be the assigned grade.

Grade	Rubric or Standard Expected
A	Focused and clearly organized. Contains advanced critical thinking and analysis. Convincing evidence is provided to support conclusions. Clearly meets or exceeds assignment requirements.
B	Generally focused with some development of ideas, but may be simplistic or repetitive. Evidence is provided to support conclusions. Occasional grammatical errors. Meets assignment requirements, but does not exceed.
C	Unfocused, underdeveloped, or rambling, but has some coherence. Minimal evidence is provided to support conclusions. Several grammatical errors. Meets minimum assignment requirements.
D	Unfocused, underdeveloped, and/or rambling. Limited evidence is used to support conclusions. Serious grammatical errors that impede overall understanding. Does not address the assignment requirements
F	Unfocused, underdeveloped, and/or rambling. Incomplete or too brief. No evidence is used to support conclusions. Serious grammatical errors that block overall understanding. Does not meet assignment requirements. Minimal to no student effort.

Late assignments will not be accepted. Student will hand in assignment the week it is due. Students will not be allowed to take missed, quizzes, mid-term exam or final exam.

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.

Attendance/Course Policies

- A student who fails to attend the first meeting of a 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.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Department of Apprenticeship Standards (DAS) and IID require all apprenticeship students to complete all Related Supplemental Instruction (RSI) hours as noted on the Course Outline of Record. To abide by this policy/requirement, "students/apprentices who do not complete the required classroom instructional hours by end of the semester will be issued an "Incomplete". Students have until the end of the 6th week of the following semester (IVC policy) to make-up hours missed and earn a letter grade."

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.

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Anticipated Class Schedule/Calendar

Below is a list of weekly activities and assignments that will assist you in meeting the course objectives and the Student Learning Outcomes. Please review carefully and often as the list may include reading assignments, exams, field trips, projects, presentations, etc.
Subject to change at Instructor's discretion.

DISTRIBUTION LINE MAINTENANCE I

Week 1:	Introductions Review Class Syllabus Review Class Expectations
Week 2:	Cable Fault Location
Week 3:	Pad Mounted Transformers & Switchyards
Week 4:	URD Transformers
Week 5:	URD Transformers

UNDERGROUND LINE MAINTENANCE I

Week 6:	Manhole Rescue. Safety in Underground Line Maintenance
Week 7:	Cable Splicing, Midterm Review
Week 8:	**MIDTERM EXAM**
Week 9:	Cable Splicing # 2
Week 10:	Cable Terminations
Week 11:	Underground Cable Installation
Week 12:	Underground Conduit IID Standards
Week 13:	Underground Conduit
Week 14:	Underground Residential Distribution Systems
Week 15:	IID Standards, Final Exam Review
Week 16:	**FINAL EXAM**

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