

### Basic Course Information

Semester	<b>Spring 2016</b>	Instructor's Name	<b>Timothy E. Hutchinson</b>
Course Title & #	<b>APLN 107</b>	Instructor's Email	<b>tehutchinson@iid.com</b>
CRN #	<b>21019</b>	Webpage (optional)	
Room	<b>Mechanical Room</b>	Office (PT Faculty:809)	
Class Dates	<b>February 10-June 10, 2016</b>	Office Hours (n/a for PT Faculty)	
Class Days	<b>Tuesday</b>	Office Phone # (PT may use dept. number)	<b>(760) 339-9376</b>
Class Times	<b>3:30 pm until 7:30 pm</b>	Who students should contact if emergency or other absence	Instructor Timothy E. Hutchinson (760) 427-1419 or e-mail address: <a href="mailto:tehutchinson@iid.com">tehutchinson@iid.com</a>
Units	<b>4 Units</b>		

### Course Description

Theory and practicum in the procedures for completing commercial and residential connections as per utility industrial standards, extensive overview of electrical installations (Overhead/Underground), and the installation and maintenance of series and multiple circuit street lighting systems. **(Non-transferrable, AA/AS degree only)**

### Student Learning Outcomes

**Upon course completion, the successful student will have to acquire new skills, knowledge, and or attitudes as demonstrated by being able to:**

1. Understand the appropriate use of personal protective equipment (PPE) depending on job specifics and the job performed (ILO1)
2. Understand code of safe work practices, jobsite hazard analysis (JSHA) and appropriate steps to work/perform a safe and healthy work place (ILO1, ILO2)
3. Understand the purpose of clearance(s), Hot-line Orders, Lockout/Tag-out (LOTO) of equipment and apparatus with a utility. Comprehend the electrical industrial standards as per General Orders 95, 128 and other applicable standards and regulations (ILO1, ILO2, ILO5)

### Course Objectives

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

1. Practice standard safety procedures appropriate the power utility industry.
2. Recognize and deal appropriately with hazardous materials in the power utility industry.
3. Identify and resolve power outages and/or loss (troubleshoot).
4. Explain the installation/trouble-shoot a watt hour meter.
5. Identify and complete a commercial and residential connection.
6. Identify and connect series and multiple circuit connections (street lighting).
7. Analyze, troubleshoot, and repair lighting and power loss.

### Textbooks & Other Resources or Links

- Electrical Lineman Training Committee (2009). Imperial Irrigation District's Lineman Apprenticeship Training Handbook Imperial, CA Imperial Irrigation District. ISBN: -
- Shoemaker, Thomas M. and James E. Mack (2012). The Lineman's and Cableman's Hand-book (12th/e). New York McGraw-Hill. ISBN: 978007174580

### Course Requirements and Instructional Methods

#### Required Information—discretionary language

The classroom setting is set for:

- **Audio/Visual**
- **Demonstration and hands on**
- **Discussion**
- **Group Activity**
- **Individual Assistance**
- **Lecture**
- **Simulation/Case Study/Workshop**

**Out of Class Assignments:** The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

### Course Grading Based on Course Objectives

**Quiz' are set for every two week intervals. Mid-term set for Week 8 and Final Exam set for Week 16. The Quiz' and Exams are subject to change: dates to accommodate class schedules and allow for guest expert speakers.**

### Attendance

#### Required language

- 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.

### Classroom Etiquette

**Required Information --Discretionary language**

**This is where an instructor explains his/her policy on these matters. Here is some suggested language:**

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor. **Consider:** specifics for your class/program
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

### Academic Honesty

#### Required Language

- Plagiarism is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment ;(c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment, (e) use of a commercial term paper service

### Additional Help – Discretionary Section and Language

**The instructor can add the information pertinent to his or her class here. Some suggested language:**

- Blackboard support center: Check for special announcements and additional instructional materials and videos
- 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.

### Disabled Student Programs and Services (DSPS)

**Required Language:** Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. If you feel you need to be evaluated for educational accommodations, the DSP&S office is located in Building 2100, telephone 760-355-6313.

**Physical Conditions:** Notify the instructor if you have any physical conditions which could possibly affect your safety or health in the performance of the course class/laboratory assignments. Adjustments to your assignments, if necessary, will be made.

### Student Counseling and Health Services

**Required Language:** Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <http://www.imperial.edu/students/student-health-center/>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

**Student Rights and Responsibilities**

**Required Language:** Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at [http://www.imperial.edu/index.php?option=com\\_docman&task=doc\\_download&gid=4516&Itemid=762](http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762)

**Information Literacy**

**Required Language:** Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/>

**Anticipated Class Schedule / Calendar**

**Required Information –Discretionary Language and Formatting:** The instructor will provide a tentative, provisional overview of the reading, assignments, tests, or other activity for the duration of the course. The faculty may find a table format useful for this purpose.

<b>Date or Week</b>	<b>Activity, Assignment, and/or Topic</b>	<b>Pages/ Due Dates/Tests</b>
Week 1 Feb. 16, 2016	Syllabus & Introduction	
Week 2 Feb. 23, 2016	Service Installation: Chapters 1-3	
Week 3 Mar. 1, 2016	Service Installation: 4-6	Quiz on Service Installation
Week 4 Mar. 8, 2016	Cable Faults: Chapters 1-4	
Week 5 Mar. 15, 2016	Compressors Pneumatic Tools: Chapters 1-3	
Week 6 Mar. 22, 2016	Compressors Pneumatic Tools: Chapter 4-6	Quiz for Cable Faults and Compressors
Week 7 Mar. 29, 2016	<b>Spring Break: HOLIDAY</b>	
Week 8 Apr. 5, 2016	Safety in Transmission and Distribution Maintenance: Chapters 1-3	Study for Mid-Term
Week 9 Apr. 12, 2016	MID-TERM: Safety in Transmission and Distribution Maintenance: Chapters 4-6	
Week 10 Apr. 18, 2016	System Protection Monitoring: Chapters 1-3	Quiz for T&D Maint.
Week 11 Apr. 26, 2016	System Protection Monitoring: Chapters 4-6	

Imperial Valley College Course Syllabus – Course Title and number

Week 12 May 3, 2016	Transmission Line Safety: Chapters 1-3	Quiz on System Protection
Week 13 May 10, 2016	Transmission Line Safety: Chapters 4-5 Tree Trimming: Chapters 1-2	
Week 14 May 17, 2016	Tree Trimming: Chapters 3-5	Quiz on Transmission Line Safety
Week 15 May 24, 2016	URD Trouble-shooting: Chapters 1-3	
Week 16 May 31, 2016	Multiple and Series Streetlighting	Study for Final Exam
Week 17 June 7, 2016	Final Exam	

**Grade(s): Grading System**

Class participation is set at 25% total grade. Completion of assignments 100 total points

Home assignments are set for 25% total grade. Completion of assignments 100 total points.

Mid-Term is set at 25% total grade

Fifty questions gathered from assignments, valued at two points per question total of 100 points

Final exam set at 25% total grade

Fifty questions gathered from assignments, valued at two points per question total of 100 points

Adding all four portions of the grading system and dividing by four would equal average points (0-100)

**Point score-Letter Grade:**

90-100	<b>A</b> -Excellent
80-89	<b>B</b> -Better than average
70-79	<b>C</b> -Average
60-69	<b>D</b> -Below Average
Below 60	<b>F</b> -Failing