

ELECTRICAL TRADES ONE - CLASS SYLLABUS
10341 ELTT 101 -FALL 2010

Instructor: Mark Gappinger

Office location: 1653 W. Main St. El Centro Ca.

Office hours: 7:30 – 5:30

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Class hours: 4:00 pm - 8:30 pm Tuesday(s)

COURSE DESCRIPTION: Basic mathematical functions and computations as they pertain to electricity and electronics. Introduction to basic principles of electricity, AC/DC circuits, electromagnetism, symbols, schematic diagrams, and fundamental safety skills as they pertain to on-the-job training.

TEXT: Electrical Lineman Training Committee. Imperial Irrigation District's Lineman Apprenticeship Training Program Handbook Imperial, CA Imperial Irrigation District. ISBN: - Shoemaker, Thomas M and James E. Mack (2007). The Lineman's and Cableman's Handbook (11th/e). New York McGraw-Hill. ISBN:-

SUPPLEMENTAL TEXT OR READING: Virtual Laboratory, voltage

<http://jersey.uoregon.edu/vlab/Voltage/>

GOALS AND/OR OBJECTIVES:

STUDENT LEARNING OUTCOMES: Upon course completion, the successful student will have acquired new skills, knowledge, and/or attitudes as demonstrated by being able to:

Understand basic math as it pertains to basic electricity. (ILO2, ILO3)

Understand ohms law, series and parallel circuits, also combination circuits. (ILO2, ILO3)

Understand basic electromagnetic theory which will include magnetism, field strength, motor action and definition of electromagnetism. (ILO2, ILO3)

Understand basic motors and generators. (ILO2, ILO3)

GRADING:

QUIZES.....	10%
READING.....	5%
MID TERM.....	35%
FINAL EXAM.....	50%

GRADING SCALE:

90 – 100% = A
80 – 89% = B
70 – 79% = C
60 – 69% = D
Below 60 = F

ATTENDANCE: Students are expected to attend every class session. Any student who misses the first class will be dropped. Students may be dropped at instructor discretion if they miss more than a week of class hours continuously. Please make arrangements with the instructor or a fellow student to keep up with all assignments in case you cannot attend a class session for any reason. (See also IVC catalog)

DISRUPTIVE STUDENTS: Most of you are here to learn, but some students are not serious. To preserve a productive learning environment, students who disrupt or interfere with a class may be sent out of the room and told to meet Sergio Lopez, Campus Disciplinary officer, before returning to continue with coursework. Mr. Lopez will follow disciplinary procedures as outlined in the General Catalog.

DROP POLICY: See attendance section above.

SYLLABUS:

8/21/2012	1. IID's Electrical Safety Workshop 2. Line Construction Safety 3. Class room expectations, attendance, and absences 4. Course review 5. Fundamental knowledge test
8/28/2012	General Mathematics 1. Primary math functions 2. Percentages and decimals
9/4/2012	General Mathematics continued 3. Fractions 4. Measurements
9/11/2012	Review of Basic Mathematics
9/18/2012	Basic Electricity Review 1. Where does electricity come from 2. Basic electrical quantities
9/25/2012	DC Fundamentals review Ohm's Law
10/2/2012	Series Circuits Virtual Laboratory: Voltage http://jersey.uoregon.edu/vlab/Voltage/
10/9/2012	Basic electricity review Mid Term Exam
10/16/2012	Parallel circuits Series parallel circuits
10/23/2012	AC fundamentals review
10/30/2012	AC fundamentals review (continued)
11/6/2012	Reading electrical systems diagrams

11/13/2012	Electromagnetic induction review
	<ol style="list-style-type: none">1. Magnetism2. Electromagnetism3. Field strength4. Motor action5. Generators6. Transformers
11/20/2012	Single phase and three phase systems (introduction)
11/27/2012	Review of mathematics and electricity fundamentals
12/4/2012	Final Exam