COURSE SYLLABUS FOR

DC-AC CIRCUITS

CETT 1409

INSTRUCTOR: Al Forte Office Phone: 335-6517 Cell Phone:230-0678 Office Hours: by appointment

COURSE NUMBER: CETT 1409

CREDIT HOURS: 4 (3/3)

PREREQUISITE: NONE

CATALOGUE DESCRIPTION:
A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab fee required. (SCANS 3,5,8,9)

TEXTBOOK: *Basic Electronics by Grob* LAB MANUAL: *Basic Electronics by Grob*

SUPPLIES:
1. Calculator (required)
2. Digital VOM meter (required)
3. Other

LEARNING OUTCOMES:
After completing this course, the student should be able to demonstrate competency in:
- The effective and efficient use of various meters; including volt, amp, and ohm meters
- The use and understanding of power supplies, breadboards and other equipment
- The use and understanding of a wide range of electrical circuits

COURSE REQUIREMENTS:
- Complete all scheduled homework
- Complete all scheduled labs
- Complete written\lab tests
- Complete a written\lab final test

METHODS OF EVALUATION:

GRADING SCALE

POINTS	GRADE
90-100	A
80-89	B
70-79	C
65-69	D
0-64	F

WEIGHT OF COURSE REQUIREMENTS

AREA	GRADE WEIGHT
LAB ASSIGNMENTS	25%
TESTS	25%
FINAL TEST	25%
PROFESSIONALISM	25%
TOTAL	100%

ATTENDANCE POLICY\PROFESSIONALISM POLICY
Attendance is the greatest predictor of your success. Your attendance at EVERY ONE of the classes and labs is important and expected. A substantial grade penalty will be assessed to late work; including homework, lab assignments, and test. The "Professionalism Grade" will be determined by such factors as attendance, tardiness, class participation, and other classroom factors.

AC-DC CIRCUITS
SYLLABUS CHART

Lesson #	Topic	Specific Topic	Labs\ Tasks\Info
1	Intro Syllabus Review Numbers	☐ Numbers	☐Number Info Sheet ☐ LAB
2	RESISTORS	☐ COLOR CODES	Color Code Chart ☐ LAB
3		☐RESISTANCE IN SERIES ☐ BREADBOARDS	☐ Lesson Questions ☐ LAB
4	SERIES CIRCUITS	☐ AMPERAGE ☐ OHMS LAW ☐ AMP METERS	Ohms Law Chart ☐ LAB
5		☐AMPERAGE ☐DECADE BOX ☐OHMS LAW ☐AMP METERS	☐ Lesson Questions ☐ LAB
6		☐AMPERAGE ☐OHMS LAW ☐AMP METERS	☐ LAB
7		☐VOLTAGE DROP ☐ METERS	☐ Lesson Questions ☐ LAB 7.1
8		☐ANALOG METERS Build an analog volt meter	☐ LAB 8.1
9		☐ Solve for unknown resistor values using meter readings	☐ LAB 9.1
10		☐ Fuses and Switches	☐ LAB 10.1
TEST 1			
11	PARALLEL CIRCUITS	☐PARALLEL CIRCUITS Basic Concepts	☐LAB 11.1
12		☐PARALLEL CIRCUITS	☐LAB 12.1
13		☐PARALLEL CIRCUITS	☐LAB 13.1
14		☐PARALLEL CIRCUITS	☐LAB 14.1
15	WATTAGE	☐Wattage Descriptions ☐Limitations on Resistors	☐LAB 15.1
16	VOLTAGE DROP	☐ Solve for voltage drops using NEC 310-16 and Table 8	☐ Lab 16.1 ☐Questions
17	COMBINATION CIRCUITS	☐ OHMS LAW ☐ SERIES\PARALLEL CIRCUITS	☐ LAB 17.1
18	AMP METER	☐ Construct an amp meter	☐ LAB 18.1

19	POTS\RHEOSTATS	☐ Basics	☐ lab 19.1
20	Combination Circuits	☐Construct an Ohm Meter	☐LAB 20.1
		IN CLASS TEST 2	
T E S T 2			
21	SOLDERING	☐ Soldering Basics	☐ Video\Soldering Projects
22	COMPLEX CIRCUITS	Bridge Circuits\Galvanometer	LAB 22.1
23	MULTISIM	☐ Multisim Basics	LAB 23.1
24	MULTISIM	☐ Multisim	LAB 24.1
25	AC VOLTAGES	☐Basic Oscilloscope Use ☐ Basic Function Generator	☐ LAB 25.1
26		☐ Scope Use in Circuits	☐ LAB 26.1
27		☐ Scope\Voltmeter Measurements (Peak, PP, RMS)	☐ LAB 27.1
28		☐ Transformers	☐ LAB 28.1
29	CATCH UP\REVIEW FOR FINAL		
30	FINAL		
31			