COURSE SYLLABUS FOR

RESIDENTIAL WIRING

ELPT 1429

INSTRUCTOR: Norman Witcher

COURSE NUMBER: ELPT 1429

CREDIT HOURS: 4 (3/3)

PREREQUISITE: NONE

CATALOGUE DESCRIPTION: Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

TEXTBOOK: *Residential Wiring*

SUPPLIES:
1. Calculator
2. Digital VOM meter
3. Other

LEARNING OUTCOMES: Compute the circuit sizes needed for the installation of branch circuits, feeders, and service entrance conductors; explain the proper installation of wiring devices according to electrical codes; demonstrate grounding methods; install ground fault circuits; identify residential wiring methods; and demonstrate proper safety procedures.

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.

RESIDENTIAL WIRING
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	
TEST 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			

Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

Student E-mail

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: http://www.odessa.edu/gmail/. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: http://www.odessa.edu/gmail/. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability abd student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the Odessa College Student Handbook.