COURSE: Residential/Commercial Wiring  |  CREDITS: 4  |  CONTACTS: CLASS - LAB - TOTAL: 3 3 4
PREREQUISITES: None
DESCRIPTION: This course is a study of wiring methods and practices used in residential and commercial applications.

TEXTBOOK(S) OR ALTERNATIVE: Modern Residential Wiring: Harvey N. Holzman; Good Heart/Willcox Publishing Company.

MATERIALS (specifying those to be purchased by student): The student will provide the textbook, paper, pencil, and scientific calculator. Lab materials and tools will be provided.

COLLATERAL READING: As assigned by the instructor.

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.): Academic dishonesty: Students are expected to do their own work. During a test, as well as on any written assignment, paper, or project, anyone caught exchanging information or copying someone else's work will be given a grade of "F" on that work and face further disciplinary action. Please refer to the NETC Student Code and Grievance Procedure for definition of academic dishonesty and an outline of disciplinary action that may result therefrom.

Attendance: Students are expected to attend all scheduled classes, however, up to ten hours of absence are allowed for unavoidable hardships such as illness or car trouble. A student missing more than ten hours of class for any reason will be dropped from the course for excessive absences. A grade of "W" will be assigned if a student drops, or is dropped from a class prior to mid-term. After mid-term, a grade of "WF" is assigned unless there are extenuating circumstances and the student is passing the course at the time of withdrawal.

Tardies: A student is tardy if he/she arrives for class after the instructor has checked the class roll. Three tardies constitute one hour of absence.

Assigned Work: If a student is absent the day an assignment (test and/or homework) is due, he/she is required to complete the work on the first day back in class.

Classroom Etiquette: An integral part of an education is developing a sense of integrity and responsibility not only toward
ourselves but also toward others. In the classroom, as on the job or in your home, exhibiting appropriate behavior reflects on your maturity. Arriving on time to class, being prepared, and considerate of others as they are talking has a positive effect on others. Please be considerate.

Disabilities Statement:
Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See Catalog)

Student ID:
It is mandatory that every student wear his/her student ID at all times. The instructor will dismiss students without ID from class. The student may get his/her ID and return to class before the midpoint of the class. If the student cannot get his/her ID and return to class by the midpoint, the instructor will record the absence.

RESOURCES (A-V, persons, tools/equipment): Filmstrips: Residential Wiring, hand tools, lab stations, and other materials will be used in the class.

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

TENTATIVE

UNIT 1 ELECTRICITY
   a. Electrical Energy Fundamentals
   b. Electrical Circuit Theory
   c. Electrical Circuit Components

UNIT 2 TOOLS AND SAFETY
   a. Tools for Electricians
   b. Safety and Grounding Essentials
   c. Wiring Systems

UNIT 3 DEVICES AND INSTALLATION
   a. Boxes, Fittings, and Covers
   b. Installing Boxes and Conductors
   c. Device Wiring

UNIT 4 BRANCH CIRCUIT
   a. Planning Branch Circuits
   b. Reading Blue Prints and Wiring Circuits
   c. The Service Entrance
   d. Appliance Wiring and Special Outlets
UNIT 5  SPECIAL APPLICATIONS
a. Light Commercial Wiring
b. Farm Wiring
c. Mobile Home Wiring
d. Low Voltage Circuits
e. Swimming Pool Wiring

UNIT 6  TROUBLESHOOTING AND MOTORS
a. Electrical Meters
b. Electrical Troubleshooting
c. Motors and Motors Circuits
d. Specialized Wiring

STUDENT LEARNING OUTCOMES/OBJECTIVES OF COURSE: Upon completion of this course the student will have demonstrated the ability to:

1. Design and install a modern, safe residential wiring system as prescribed by the National Electrical Code.

2. Wire electrical devices typically found in a modern resident, such as, switches, lights, and receptacles.

3. Work in teams to layout and wire various electrical circuits using room mockups.

INSTRUCTIONAL METHODS TO COMPLETE OUTCOMES/OBJECTIVES: Classroom lecture, demonstration, lab practice, and site visits when possible.

EVALUATIVE METHODS TO APPRAISE OUTCOMES/OBJECTIVES: Several tests will be given. The test average will constitute 60% of the course grade with 40% assigned to lab practice.

GRADING SCALE: The grade scale is as follows:

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
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<tr>
<td>80 - 89</td>
<td>B</td>
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<tr>
<td>70 - 79</td>
<td>C</td>
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<tr>
<td>60 - 69</td>
<td>D</td>
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<tr>
<td>BELOW 60</td>
<td>F</td>
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