ELECTRICAL SCHEMATIC AND BLUEPRINT READING IN CONSTRUCTION
Course Syllabus

Course Number: CNST-0772  
OHLAP Credit: No
OCAS Code: None
Course Length: 45 Hours
Career Cluster: Architecture and Construction
Career Pathway: Construction
Career Major(s): Commercial Electricians Assistant, Electrical Assistant-Entry Level

Pre-requisite(s): This course prepares the student to interpret standard electrical schematics and construction blueprints.

Course Description: This course prepares the student to interpret standard electrical schematics and construction blueprints.

Textbooks:  
Instructor-created materials

Course Objectives:  
A. Complete an Introduction to Electrical Blueprints.
   1. Explain the basic layout of a blueprint.
   2. Describe the information included in the title block of a blueprint.
   3. Identify the types of lines used on blueprints.
   4. Identify common symbols used on blueprints.
   5. Understand the use of architect's and engineer's scales.
   6. Interpret electrical drawings, including site plans, floor plans, and detail drawings.
   7. Read equipment schedules found on electrical blueprints.
   8. Describe the type of information included in electrical specifications.

B. Work with a Power Blueprint of a House.
   1. Measure and scale the dimensions of the house to be drawn.
   2. Identify the correct placement of the receptacles according to NEC.
   3. Draw a power blueprint of a house.

C. Work with a Lighting Blueprint of a House.
   1. Measure and scale the dimensions of the house to be drawn.
   2. Identify the correct placement of switches and lights.
   3. Demonstrate the ability to draw a lighting blueprint of a house.

D. Complete Activities Related to Material Take Off, Price Lists, and Estimation.
   1. Create a list of materials using residential blueprints.
   2. Create a price list using prices from local vendor list prices for materials.
   3. Determine total cost of materials.
   4. Identify estimation procedures.
   5. Create a cost estimation of a house.
1 NCCER objective
All unmarked objectives are TTC instructor developed.

**Teaching Methods:**
The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

**Grading Procedures:**
1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

**Description of Classroom, Laboratories, and Equipment:**
Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

**Available Certifications/College Credit:**
The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

**College Credit Eligibility:**
The student must maintain a grade point average of 2.0 or better.