Industrial Wiring

Syllabus

Instructor: Mark Lacey

Electrical Technology

CTSO: SKILLS USA

Program Goals: Electrical Technology provides students with classroom and laboratory experiences in electricity and electrical technology. This training enables students to enter employment and /or further education and training. Instruction in this program is based on current edition of the NEC. Topics include, but are not limited to, safety, DC/AC fundamentals, residential wiring, commercial wiring, industrial wiring, DC/AC rotating equipment, and electrical controls and devices. Particular emphasis is placed on decision-making and problem-solving techniques for applying, science, mathematics, communications, and social studies concepts to solve technological problems. In addition, students are provided with instruction and training regarding the proper care, maintenance, and sue of tools and equipment as well as information regarding applicable local, state and federal safety and environmental regulations. Hands-on work experience and SKILLS USA leadership activities provide many opportunities to enhance classroom instruction and career development

Prerequisites: Basic Wiring

Course Goals: To better prepare students to work in a safe environment and be prepared to work in the electrical field

In**structional** Philosophy: Course goals and objectives are achieved through a mixture of classroom presentations, course work, and hands-on projects. The course is designed to simulate the electrical industry

Course Description: This one credit course is designed to provide students with the fundamental knowledge and skills for this area of the construction industry. Emphasis is placed on job safety. Upon successful completion of this course, students assist in wiring a commercial building with supervision. Leadership activities, cocurricular opportunities and employability skills are emphasized in appropriate career and technical education organization affiliations.

Culminating Product: Safety test will be passed with 100% proficiency.

Student Industry Credential: NCCER CORE NCCER ELECTRICAL LEVEL ONE

Grading Scale:

90-100 A

80-89 B

70-79 C

60-69 D

0-59 F

Assessment Procedures:

Daily Grade 33.3%

Lab Grade 33.3%

Test Grade 33.3%

Final Grade : 9 week grade =85% 9 Week Test = 15%

Essential Question: What jobs are available to anyone completing industrial wiring training?

Course Outline:

Wk 1 Safety

Wk 2 Cable Tray

Wk 3 Contactors and Relays

Wk 4 and 5 Industrial Load Calculations

Wk 6 Raceway, Box, and Fitting Fill Requirements

Wk 7 Lamps, Ballasts, and Components

Wk 8 and 9 Rigid Conduit Bending

Embedded Numeracy Anchor Statement:

Improve student mathematical skills in a Project-Based Learning environment through technical related activities that prepare students for successful transition into a high demand and high wage occupation in the 21st century workforce.

Embedded Literacy Anchor Statement:

Improve student reading, writing, and comprehension skills in a Project Based Learning environment through technical related activities that prepare students for successful transition into a high demand, high wage occupation in the 21st century workforce.

CTE dual enrollment and or articulated credit opportunities are available to students.