Course Name: Electrical Level II

Contact Hours: 144

Number of Sessions: 48

Number of Hrs. /Session: 3

Mode of Instruction: Classroom or Online

Course Description:

Course is designed based on the NCCER curriculum. Students must take all four levels of electrical in order to receive a diploma/certificate from New Horizons. New Horizons **does not** use NCCER's registry system to assign certifications or NCCER numbers.

Text: Electrical Level 2 Trainee Guide, ISBN: 978-0134738215

Course Outline and Modules:

- 1. Alternating Current (17.5 Hours) (Module ID 26201-17) Describes forces that are characteristic of alternating-current systems and the application of Ohm's law to AC circuits.
- 2. Motors: Theory and Application (20 Hours) Trainee \$20 ISBN 978-0-13-478336-9 Instructor \$20 ISBN 978-0-13-481319-6 (Module ID 26202-17) Covers AC and DC motors, including the main components, circuits, and connections.
- 3. Electric Lighting (15 Hours) (Module ID 26203-17) Introduces principles of human vision and the characteristics of light. Focuses on the handling and installation of various types of lamps and lighting fixtures.
- 4. Conduit Bending (15 Hours) (Module ID 26204-17) Covers bends in conduit up to 6 inches. Focuses on mechanical, hydraulic, and electrical benders.
- 5. Pull and Junction Boxes (12.5 Hours) (Module ID 26205-17) Explains how to select and size pull boxes, junction boxes, and handholes.
- 6. Conductor Installations (10 Hours) (Module ID 26206-17) Covers the transportation, storage, and setup of cable reels; methods of rigging; and procedures for complete cable pulls in raceways and cable trays.
- 7. Cable Tray (7.5 Hours) (Module ID 26207-17) Focuses on NEC® installation requirements for cable tray, including cable installations.
- 8. Conductor Terminations and Splices (7.5 Hours) (Module ID 26208-17) Describes methods of terminating and splicing conductors, including preparing and taping conductors.
- 9. Grounding and Bonding (15 Hours) (Module ID 26209-17) Focuses on the purpose of grounding and bonding electrical systems. Thoroughly covers NEC® requirements.



- 10. Circuit Breakers and Fuses (12.5 Hours) (Module ID 26210-17) Describes fuses and circuit breakers along with their practical applications. Also covers sizing.
- 11. Control Systems and Fundamental Concepts (12.5 Hours) (Module ID 26211-17) Gives basic descriptions of various types of contactors and relays along with their practical applications.

