

ORIENTATION TO THE ELECTRICAL TRADE

Module One (26101-17) describes the various career paths in the electrical industry. It also covers the apprenticeship requirements for electricians and discusses employer/employee responsibilities.

Objectives

Learning Objective 1

- Identify the various sectors and trade options in the electrical industry.
 - a. Describe the typical components in a residential wiring system.
 - b. Describe the typical components in a commercial wiring system.
 - c. Describe the typical components in an industrial wiring system.
 - d. List various career paths and opportunities in the electrical trade.

Learning Objective 2

- Understand the apprenticeship/training process for electricians.
 - a. List department of labor (DOL) requirements for apprenticeship.
 - b. Describe various types of training in the electrical field.

Learning Objective 3

- Understand the responsibilities of the employee and employer.
 - a. Identify employee responsibilities.
 - b. Identify employer responsibilities.

Performance Tasks

This is a knowledge-based module; there are no performance tasks.

Note

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Teaching Time: 2.5 hours

(One 2.5-Hour Session)

Session time may be adjusted to accommodate your class size, schedule, and teaching style.

Prerequisites

Core Curriculum

Before You Begin

As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint[®] presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the PowerPoint Presentations[®] and Performance Profile Sheets from www.nccerirc.com. For information and updates about accessing the Module Examinations, visit www.nccer.org/testing. The passing score for submission into NCCER's Registry is 70% or above for the module examination; performance testing is graded pass or fail.



Safety Considerations

This module may involve a field trip to a residential, commercial, or industrial installation. Trainees should be carefully observed to ensure that they wear the proper PPE, follow safe practices, and remain aware of any safety hazards.

Classroom Equipment and Materials

Whiteboard and markers

Pencils and paper

Electrical Level One PowerPoint® Presentation Slides

DVD player

LCD projector and screen

Computer

Internet access during class (optional)

Module Review answer key

Module Examinations

NCCER publication *Careers in Construction*

Copies of the help-wanted section from one or more electrical trade publications

Examples of NCCER Training Credentials

Copy of an employee manual from an electrical contractor

Copy of the latest edition of the OSHA Safety and Health Standards for the Construction Industry

Copy of the latest edition of the *National Electrical Code*®

Copy of the latest edition of *NFPA 70E*®, *Standard for Electrical Safety in the Workplace*

Additional Resources

This module presents thorough resources for task training. The following resource material is suggested for further study.

29 *CFR* 1900–1910, Standards for General Industry, Occupational Safety and Health Administration US Department of Labor. www.ecfr.gov

29 *CFR* 1926, Standards for the Construction Industry, Occupational Safety and Health Administration US Department of Labor. www.ecrf.gov

National Electrical Code® Handbook, National Fire Protection Association. Latest Edition.

There are a number of online resources available for trainees who would like more information on pursuing a career as an electrician. A search for additional information may be assigned as homework to interested trainees.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take still pictures related to the subject matter and add them to the PowerPoint® presentations throughout the program.

Session Outline for Module 26101-17

ORIENTATION TO THE ELECTRICAL TRADE

The lesson plan for this module consists of one 2.5-hour session.
This session includes 10 minutes for administrative tasks and one 10-minute break.

SESSION ONE

Session One covers Sections 1.0.0 through 3.0.0, and describes various career paths in the electrical industry, training and apprenticeship, and responsibilities of employers and employees. In addition, this session includes a review of the complete module and the module exam is administered.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to identify the career options for electricians.
3. Identify the various sectors in the electrical industry.
4. Describe the apprenticeship/training process for electricians.
5. Define the responsibilities of the employee and employer.
6. Have the trainees complete the module review questions. Go over the review questions in class prior to the exam and answer any questions that the trainees may have.
8. Administer the Module Examination and any outstanding performance testing, and submit the results to your Training Program Sponsor through the Registry System.

