

COURSE OUTLINE



Low Voltage Electrical Safety (Computer-Based Training)

4-Hour Course with 1 hour SME review

OVERVIEW This course provides a thorough knowledge of the recommended safe behaviors for those who work around electrical hazards. Attendees gain an understanding of the latest guidelines and regulations from NFPA 70E and OSHA. Electrical workers and safety professionals learn key practical information: best work practices in electrical safety and how to apply them in real-world situations.

REFERENCES *Current NFPA 70E Standard, OSHA Regulations (as applicable)*

MATERIALS *e-Hazard Low Voltage Electrical Safety (Computer-Based Training) Workbook, Current NFPA 70E Standard*

1. Electrical Safety Facts and Regulations

- Applicable: NFPA 70E/OSHA
- How Standards Are Used
- Key Definitions/Issues

2. Electrical Hazards

- Types
- Understanding AC and DC Shock
- Variables Impacting Hazard
- Protection Boundaries
- Common Places for an Arc Flash

a. Shock PPE

- Overview
- Voltage Rated Gloves
- PPE Guidelines and Maintenance

b. Arc Flash PPE

- Overview
- PPE Programs: Categories, Levels
- Environmental Considerations
- PPE Guidelines and Maintenance

3. Risk Reduction

- Safety by Design
- Supplemental Equipment
- Engineering Solutions
- Rated Insulated Tools and Other Equipment
- Identifying and Securing Boundaries

4. Job Planning

- Elements of Safety Planning
- Job Briefing
- Energized Electrical Work Permit
- Special Equipment
- Situational Conditions (Overhead, Underground, etc.)

5. Risk Assessment

- Risk Factors: Constant and Variable
- Methods for Arc Flash Hazard
- Labeling
- Steps to Determine Protective Measures

6. Safety Related Work Practices

- “Electrically Safe Work Condition”
- Tools and Equipment
- Best Practices for Lock Out/Tag Out, Verifying De-energization and LV Grounding
- Training
- Administrative Guidelines