

COURSE OUTLINE



Low Voltage Qualified

8-Hour Course

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 Qualified Workbook, Current NFPA 70E Standard*

1. Electrical Safety Facts

2. Electrical Related Regulations & Standards

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

3. Shock Hazards & Protection Strategies

- Types
- Understanding AC and DC Shock
- Variables Impacting Hazard
- Protection Boundaries
- Voltage Rated Gloves and Other Shock PPE
- Rated Insulated Tools and Other Equipment

4. Arc Flash Hazards & Protection Strategies

- Causes/Types
- Arc Blast
- Common Places
- Arc Flash Boundaries
- Practical Application

5. Arc Rated Personal Protective Equipment

- Overview
- Protecting Head, Hands and Feet
- PPE Programs: Categories, Levels
- Environmental Considerations
- PPE Guidelines and Maintenance

6. Risk Reduction Strategies

- Safety by Design
- Supplemental Equipment
- Engineering Solutions

7. Job Planning

- Elements of Safety Planning
- Job Briefing
- Energized Electrical Work Permit

8. Risk Assessment

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

9. Safety Related Work Practices

- “Electrically Safe Work Condition”
- Identifying and Securing Boundaries
- Tools and Equipment
- Best Practices for Lock Out/Tag Out, Verifying De-energization and LV Grounding
- Situational Conditions (Overhead, Underground, etc.)
- Special Equipment
- Training
- Administrative Guidelines
- Recognizing Hazards and Poor Work Practices