



## NFPA 70E® Safety for Electricians

### Course Description, Performance Objectives and Timed Agenda of the Course Outline

(2 Continuing Education Hours)

#### Course Description

This 4-hour electrical safety course covers major NFPA 70E requirements for safe work practices to protect personnel by reducing exposure to major electrical hazards. Master electrician Peter Larsen guides you through safety procedures from the moment you wake up until you leave the job site and return home. The course also addresses proper tool use and safety. Finally, the course provides video-based case studies and testimonials of safety errors, some that resulted in major injuries. These real-world stories from seasoned electricians are shared so hopefully you can avoid making the same mistakes they made.

#### Performance Objectives

Upon successful completion of this course, the student will be able to:

- Describe safety concerns at the job site
- Discuss proper tool safety for most used tools, including lockout/tagout procedures
- Explain some key causes of injury including clothing, distraction, unplanned jobs, and arc flash.
- Recognize safety mistakes made by seasoned electrical professionals including arc fault, breaker trips, and extreme heat
- Understand the importance of maintaining safe conditions for others working around electricians

# Timed Agenda of the Course Outline

(2 Continuing Education Hours)

| Lesson 1 – Safety Starts with You                       | 60 Minutes      |
|---|-----------------|
| Course Description                                      | (19 secs)       |
| Disclaimer  | (44 secs)       |
| Performance Objectives                                  | (36 secs)       |
| Intro Peter Larsen                                      | (34 secs)       |
| Why Take This Course                                    | (33 secs)       |
| Why Safety Is Important                                 | (1 min 40 secs) |
| Goal of This Course                                     | (1 min 27 secs) |
| Prep Flash Explosion (wear your safety equipment (PPE)) | (1 min 12 secs) |
| Prep Flash Explosion 2                                  | (1 min 08 secs) |
| Prep Flash Explosion 3                                  | (1 min 59 secs) |
| Prep Flash Explosion 4                                  | (1 min 38 secs) |
| Safety Starts With You                                  | (50 secs)       |
| Is Sleep Part of Safety?                                | (33 secs)       |
| Code 130.6  | (58 secs)       |
| Importance of sleep                                     | (55 secs)       |
| Finding Sleep and Insomnia                              | (39 secs)       |
| Being an Electrician and Weather                        | (1 min 24 secs) |
| Case History - Working in an Attic                      | (35 secs)       |
| How Heat Affects Your Body                              | (1 min 16 secs) |
| Your Safety vs. Your Job                                | (33 secs)       |
| Heat and Your Safety                                    | (37 secs)       |
| Proper Clothing and 130.7(11)                           | (1 min 03 secs) |
| The Right Clothing                                      | (1 min 02 secs) |
| Covid-19 Considerations                                 | (42 secs)       |
| Vehicle Inspections                                     | (24 secs)       |
| Driving to Work, Your First Hazard of the Day           | (1 min 11 secs) |
| Parking Considerations                                  | (1 min 29 secs) |
| At the Job Site and 110.3                               | (33 secs)       |
| NFPA-70e, Tasks, and Brief                              | (48 secs)       |
| Job Safety Analysis                                     | (58 secs)       |
| Hazards Listed  | (1 min 24 secs) |
| 110.2 and Emergency Response                            | (43 secs)       |
| Case History - Dave Bryan Story (Battery Storage)       | (1 min 02 secs) |
| Safety of Those Working Around Us                       | (1 min 09 secs) |
| Battery Maintenance Story                               | (34 secs)       |
| Routine Maintenance and Complacency                     | (1 min 01 secs) |

|                                       |                 |
|---------------------------------------|-----------------|
| The Tools Tell the Story              | (52 secs)       |
| Cutting an Unknown Pipe               | (36 secs)       |
| Greg Swartz Story (Working on a Lift) | (1 min 39 secs) |
| Most Important Safety Tools           | (1 min 58 secs) |
| Always Wear Your Safety Glasses       | (1 min 01 secs) |
| Ladder Safety Story 1                 | (52 secs)       |
| Ladder Safety Story 2                 | (1 min 26 secs) |
| Gloves                                | (1 min 08 secs) |
| The Benefits of Gloves                | (20 secs)       |
| Hand Safety Story                     | (1 min 13 secs) |
| What's a Safety Harness?              | (1 min 49 secs) |
| Hearing Protection                    | (1 min 43 secs) |
| When to Use Hearing Protection        | (26 secs)       |
| Summary                               | (27 secs)       |
| Lesson Test                           | (10 minutes)    |

## Lesson 2 – Proper Tool Safety

52 Minutes

|   |                  |
|---|------------------|
| Growing Attached to Your Tools            | (1 min 09 secs)  |
| Before Getting Started at the Jobsite     | (40 secs)        |
| Most Used Tools - Knife                   | (40 secs)        |
| Most Used Tools - Multi-Tool              | (1 min 49 secs)  |
| Most Used Tools - Proximity Tester        | (1 min 01 secs)  |
| Checking for Power                        | (1 min 53 secs)  |
| Greg Swartz - Testing the Circuit         | (56 secs)        |
| Most Used Tools - Pocket Flashlight       | (1 min 16 secs)  |
| Most Used Tools - 10-in-1 Screwdriver     | (1 min 30 secs)  |
| Most Used Tools - Torque Screwdriver      | (1 min 53 secs)  |
| Most Used Tools - Tarps                   | (1 min 51 secs)  |
| Most Used Tools - Hammer                  | (1 min 10 secs)  |
| Most Used Tools - Label Maker             | (1 min 13 secs)  |
| Most Used Tools - Battery Drill           | (1 min 22 secs)  |
| Drill Safety Considerations               | (48 secs)        |
| Most Used Tools - Circuit Tracer          | (1 min 37 secs)  |
| Donald Bittner - Just Short it Out        | (1 min 11 secs)  |
| Most Used Tools - Ground Rod Driver       | (1 min 31 secs)  |
| Josiah Larsen - Staying Focused           | (1 min 05 secs)  |
| Ground Rod Driver vs. Sledge Hammer       | (2 mins 14 secs) |
| Most Used Tools - Drywall Cutter          | (2 mins 34 secs) |
| Most Used Tools - Insulated Hand Tools    | (1 min 37 secs)  |
| Having Safety Gear and Using It           | (1 min 20 secs)  |
| Thinking About What Safety Gear is Needed | (1 min 04 secs)  |

|   |                  |
|---|------------------|
| Ladder Story - The Situation                  | (1 min 45 secs)  |
| Ladder Story - Trying to Do it Safely         | (55 secs)        |
| Ladder Story - What it Does to You            | (46 secs)        |
| Ladder Story - Looking Back                   | (41 secs)        |
| More Ladder Incidents                         | (57 secs)        |
| OSHA Standards and Making the Right Decisions | (39 secs)        |
| Summary                                       | (2 mins 37 secs) |
| Lesson Test                                   | (10 minutes)     |

### Lesson 3 – Job Site Safety

**53 Minutes**

|  |                  |
|--|------------------|
| Introduction                                     | (01 secs)        |
| 70E and Working with Power On                    | (1 min 00 secs)  |
| Creating Safe Habits                             | (48 secs)        |
| Why We Perform Required Checks                   | (56 secs)        |
| Do you get Complacent?                           | (3 mins 08 secs) |
| Analysis of a Preventable Injury                 | (1 min 19 secs)  |
| How Bad Could it Get?                            | (32 secs)        |
| Wearing of Conductive Articles                   | (1 min 34 secs)  |
| Likely Cause of Incident - Distracted            | (35 secs)        |
| Likely Cause of Incident - Not Qualified         | (1 min 04 secs)  |
| Establishing an Electrically Safe Work Condition | (35 secs)        |
| Greg Swartz - Breaker Trip                       | (2 mins 03 secs) |
| Donald Bittner - Arc Flashes                     | (1 min 10 secs)  |
| Hazard of an Unplanned Job                       | (55 secs)        |
| Learning the Hard Way                            | (1 min 26 secs)  |
| Lockout / Tagout Program                         | (1 min 35 secs)  |
| Liability and Safety                             | (1 min 14 secs)  |
| Josiah Larsen - Animal Considerations            | (1 min 19 secs)  |
| Dave Bryan - Installer Safety                    | (1 min 41 secs)  |
| Situational Awareness on the Jobsite             | (2 mins 36 secs) |
| Untrained and Unsupervised                       | (1 min 25 secs)  |
| Situational Awareness is a Skill                 | (1 min 29 secs)  |
| How Alert are You at Work?                       | (1 min 38 secs)  |
| Time is Money                                    | (40 secs)        |
| Working Around Other Systems                     | (1 min 34 secs)  |
| Halon System Safety                              | (2 mins 11 secs) |
| Possible Disruption of Service                   | (2 mins 15 secs) |
| Safety Considerations                            | (38 secs)        |
| Who Closes that 1200 Amp Switch?                 | (1 min 50 secs)  |
| Summary  | (1 min 50 secs)  |

Lesson Test

(10 minutes)

## Lesson 4 – Safety Tools from 70E

50 Minutes

|   |                  |
|---|------------------|
| Introduction  | (01 secs)        |
| Steve Lenz - What Happened                              | (42 secs)        |
| Steve Lenz - What it Caused                             | (52 secs)        |
| Steve Lenz - Injuries Caused                            | (1 min 17 secs)  |
| Steve Lenz - Getting Help                               | (1 min 36 secs)  |
| Steve Lenz - Arriving at the Hospital                   | (1 min 00 secs)  |
| Steve Lenz - How it Affected Others                     | (2 mins 22 secs) |
| Steve Lenz - Dealing with the Treatment                 | (53 secs)        |
| Steve Lenz - Leaving the Hospital and Needing Support   | (1 min 57 secs)  |
| Steve Lenz - PPE vs. \$326,000                          | (1 min 37 secs)  |
| Steve Lenz - Some Advice to Help Others                 | (1 min 28 secs)  |
| Steve Lenz - Long Term Impacts                          | (1 min 26 secs)  |
| Steve Lenz - Still Dealing with Injury                  | (1 min 32 secs)  |
| Steve Lenz - Risks of Being an Electrician              | (1 min 06 secs)  |
| Steve Lenz - Recovery from Burns                        | (1 min 56 secs)  |
| Steve Lenz - Medication for Pain                        | (1 min 49 secs)  |
| Steve Lenz - Dealing with Pain Medication               | (33 secs)        |
| Steve Lenz - How it Changes You                         | (2 mins 11 secs) |
| [GRAPHIC] Steve Lenz - Photos of Burns                  | (57 secs)        |
| Peter Larsen - Tools from 70E                           | (59 secs)        |
| Experience and Thinking More About Safety               | (50 secs)        |
| Making Time for Safety                                  | (1 min 53 secs)  |
| 70E - Safety Responsibilities                           | (1 min 00 secs)  |
| What's Included in ESP, Who Completes Safety Tasks?     | (1 min 36 secs)  |
| Everyone's Commitment is Required                       | (1 min 04 secs)  |
| Unique Hazards Faced by Electricians and the ESP        | (2 mins 13 secs) |
| Awareness, Self-Discipline, Understanding Human Factors | (1 min 23 secs)  |
| The War on Injuries to Electricians                     | (1 min 49 secs)  |
| Underlying Enemy - Pride and Complacency                | (1 min 20 secs)  |
| Summary   | (54 secs)        |
| Lesson Test   | (10 minutes)     |

*Utah Electrician (DOPL)*  
*Continuing Education Course Completion Certificate*

***David Arnold***

License Number: 123456

*This certifies that the individual named has successfully  
completed the course requirements for:*

*NFPA 70E® Safety for Electricians*

Course Approval Number: xxxxx

*which was completed on 4/21/2022  
and has earned 4.00 continuing education hours.*

*Online course provided by:*

**The Media Factory, Inc. (d/b/a PacePDH.com)**

Tampa, FL 33609

(813) 830-6523

Instructor Name: Peter Larsen



[www.pacepdh.com](http://www.pacepdh.com)

A handwritten signature in black ink, appearing to read "Ron May".

*Ron May, Vice President*



# Course Syllabus

## Provider / Sponsor Information

David Arnold  
The Media Factory, Inc. (d/b/a PacePDH.com)  
405 S. Dale Mabry Hwy., #379  
Tampa, FL 33609  
(800) 576-4341 ext. 1014  
[david@pacepdh.com](mailto:david@pacepdh.com)

## Instructor Information

Peter Larsen, Master Electrician  
(719) 640-2650  
P.O. Box 564  
Peyton, CO 80831  
[peter@aseyourlight.com](mailto:peter@aseyourlight.com)

## Student Materials/Access Requirements

This course requires an **electronic device** (computer, tablet or smartphone) with an **Internet connection, audio (speakers or headset/earbuds) and video capabilities, and a current Web browser** (e.g., Google Chrome, Safari, Microsoft Edge, Firefox etc.). While the course should play using a slower connection, a **higher speed connection (e.g., cable modem (WiFi), 4G LTE or 5G) is recommended** because of the extensive use of audio in the course. Links outside the course are not set to pop-up windows, so any **installed ad-blockers should not need to be disabled**.

## Technology Support Services

Tech support for students is available Monday through Friday 8AM to 6PM Eastern time. Afterhours and weekend support is offered at times. Support is available by phone at (800) 576-4341, via Web form at <http://www.pacepdh.com/index.cfm?fuseaction=custom.contact> or via e-mail at [PaceSupport@PacePDH.com](mailto:PaceSupport@PacePDH.com).

## Reporting of Course Completion

PacePDH.com will follow all Alabama HBLB reporting guidelines by submitting CE completion rosters electronically to the HBLC and paying the appropriate filing fee in a timely manner.

## Registration and Course Completion Deadlines

There are no deadlines imposed by PacePDH.com. However, to receive proper credit, the course should be completed before the HBLB renewal date of November 30th. The system will not allow you to launch a course that is expired.

## Assignments, Homework, Library and Resource Information

This is an online course. All course work is contained within the course itself. There are no required assignments outside the course, however there may be outside links (URLs) and files (typically PDFs) used as support and/or reference materials.

## Broadcast Schedules

All portions of this course may be taken at any time 24/7, at the student's discretion.

## Fees and Refunds

PacePDH.com typically receives course tuition payments in advance via student credit or debit card payments through its secure online Web portal. Checks are also accepted; in which case courses are assigned once the check is received. For company or group purchases, payment terms may be given.

PacePDH.com's refund policy is simple. A full cash refund is offered for up to 90 days or until the course has been completed, whichever comes first. After the 90-day period courses that have not been completed can be converted into course credits for other Pace offerings. For example, if a student has completed one hour of a four-hour online course and then decides they do not want to complete the course, a full refund is still offered if it is within 90 days of the purchase date, otherwise a course credit is offered. Once the online course has been completed, as determined by our LMS (learning management system), a refund is no longer offered.

## Prior Learning Assessments / Prerequisites

There are no prerequisites for this course. Course interface/navigation instructions are provided at the beginning of the course.

## Broadcast Schedules

All portions of this course may be taken at any time 24/7, at the student's discretion.