



### Course Description/Objective

The goal of this class is to review relevant articles and changes found in the 2020NEC® and provide explanation and analysis to help the student understand the rules, their impact, and their practical application. This dynamic presentation translates the very technical language of the NEC into everyday electrician's language to ensure a safe Code-compliant system that is designed, installed, and inspected to meet the requirements in the 2020 NEC.

This outline indicates the allotted time for each topic

|                          |              |  |
|--------------------------|--------------|--|
| <b>8:00am – 9:10 am</b>  |              |  |
|                          |              | <b>Article 210.12 - AFCI's</b>   |
|                          |              | <b>Article 440 - Air-Conditioning Circuit Sizing</b>                   |
|                          |              | <b>Article 110.14 - Aluminum conductor termination methods</b>         |
|                          |              | <b>Article 110.3(B) - Anti-short bushing required for MC cable?</b>    |
|                          |              | <b>Article 725.3 - Are boxes required for low-voltage splices?</b>     |
| <b>9:10am – 9:30am</b>   | <i>Break</i> |  |
| <b>9:30am – 10:40am</b>  |              |  |
|                          |              | <b>Article 110.3(B) - Back-stab (push-in) conductor terminations</b>   |
|                          |              | <b>Article 555.9 - Boat lift GFCI protection</b>                       |
|                          |              | <b>Article 300.15 - Boxes required for splices and terminal points</b> |
|                          |              | <b>Article 334.40 - Concealed NM Splice kits</b>                       |
|                          |              | <b>Conductor Bending Radius</b>  |
| <b>10:40am – 11:00am</b> | <i>Break</i> |  |
| <b>11:00am – 12:00pm</b> |              |  |
|                          |              | <b>Article 90.4 - NEC Enforcement</b>                                  |
|                          |              | <b>Article 250.104 - Gas Pip Bonding Requirements</b>                  |
|                          |              | <b>Article 210.8 - GFCI's</b>  |
|                          |              | <b>Article 110.3(B) - How to size an LB</b>                            |
|                          |              | <b>Introduction to the NEC</b>   |
| <b>12:00pm - 1:00 pm</b> |              | <b>LUNCH</b>   |
| <b>1:00pm - 2:10pm</b>   |              |  |
|                          |              | <b>Article 725.136 - Low-Voltage Dimming conductors with Power</b>     |
|                          |              | <b>Article 90.7 - Modify listed products</b>                           |
|                          |              | <b>Article 430 - Motor Circuit Sizing</b>                              |
|                          |              | <b>Article 314.17 - Multiple NM cables on a single connector</b>       |
|                          |              | <b>Article 210.4 - Multiwire Branch Circuits</b>                       |
| <b>2:10pm – 2:30pm</b>   | <i>Break</i> |  |
| <b>2:30pm – 4:00pm</b>   |              |  |
|                          |              | <b>Article 300.4(G) - Plastic Bushing Requirements</b>                 |
|                          |              | <b>Article 725.144 - Power Over Ethernet (POE)</b>                     |
|                          |              | <b>Article 110.14 - Pre-twist conductors required for splicing?</b>    |
|                          |              | <b>Article 90.1 - Purpose of the NEC</b>                               |
|                          |              | <b>Receptacle Ground UP or Down?</b>                                   |

|                        |              |   |
|------------------------|--------------|---|
|                        |              | <b>Article 406.4 - Replacing Damage Receptacles</b>                         |
|                        |              | <b>Article 404 and 406 - Replacing switch and receptacle yoke screws</b>    |
| <i>3:40pm – 4:00pm</i> | <i>Break</i> |   |
| <b>4:00pm – 5:00pm</b> |              |   |
|                        |              | <b>Article 410.36 - Supporting Ceiling Lay in Fixtures</b>                  |
|                        |              | <b>Article 90 - The NEC is a minimum standard?</b>                          |
|                        |              | <b>Article 230.24(C) - Trouble Shooting Open Neutrals</b>                   |
|                        |              | <b>Article 210.23 - Why it's okay to have 15A receptacle on 20A circuit</b> |
| <b>5:00pm – 5:05pm</b> |              |   |
|                        |              | <b>Wrap Up</b>  |

### **Method of Course Presentation**

This program is presented in a live classroom and is accompanied by books for each student and PowerPoint slides with hundreds of illustrations and graphics.

### **Method of Evaluation of Course Participants**

Students' attendance is monitored with sign-in and sign-out sheets that verify actual time spent in the course. Students complete a course evaluation form for the course content and the instructor.

### **Course Instructors:**

See attached Bios for Mike Holt and backup instructors Daniel Brian House, Mario Valdes, and James Rogers.