

Designing and Installing Electrical Systems I, II, III and IV

Case Studies of the 2008 National Electrical Code

This series of four, 4-hour presentations will be an interactive lecture and discussion of selected case study examples of the requirements and allowances of the 2008 National Electrical Code. The case study examples will reinforce the interrelationship of the general requirements, circuit design and load calculations, overcurrent, grounding and bonding, wiring methods and equipment, and special occupancies.

Attendees may select topics of interest or may suggest additional variables be considered. (This generally happens anyway during most CE program presentations.)

Selected IAEI instruction materials will supplement instructor prepared materials.

Attendees are required to have a 2008 NEC book and a calculator.

The following is a listing of case studies:

1. Short-circuit current analysis related to NEC requirements of 110.9, 110.10, 110.16, 240.85 and 240.86.
2. Overcurrent protection of branch circuits and feeders rated 800 amperes or less.
3. Equipment room layouts, over 600 volts.
4. Identification of conductors by circuit and system.
5. Determine the minimum number of branch circuits for a typically one-family dwelling.
6. Determine the minimum number of receptacle outlets in rooms of a typical dwelling.
7. Calculate the minimum feeder ampacity for a single dwelling unit within a condominium.
8. Calculate the feeder/service load for a commercial space.
9. The installation of a service with multiple laterals.
10. Overcurrent protection of small conductors.