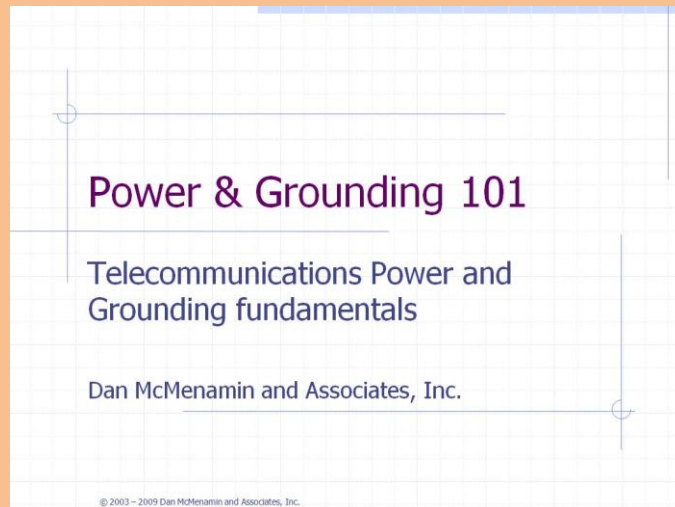


# Power and Grounding 101 Power / Grounding Fundamentals



**Duration:** 2.0 Days

**Course Description:** The course is a series of PowerPoint slides, facility walkthroughs and small workgroup exercises covering:

## **Power**

- Properties of ac & dc
- Common electrical terms
- Commercial power grid
- TVSS (Surge Suppressors)
- AC distribution
- ac cabling & engineering criteria
- dc cabling & engineering criteria
- Overcurrent protection and engineering criteria
- Power conversion
- Rectifiers and engineering criteria
- Batteries and engineering criteria
- Battery do's and don'ts
- Inverters and engineering criteria
- dc to dc converters and engineering criteria
- Controllers
- Alarms
- UPS
- Standby engine generators
- Engineering checklist
- Transitions & MOPs

## **Grounding**

- Driven Ring
- Ground Bars
- The Halo
- Coax & waveguide
- Protection
- Lightning protection systems
- Aux framing
- Relay racks & cabinets
- Monopole
- Lattice
- Guyed
- Buried electrodes
- Ground bars
- Ice Bridge and other structures
- ATS
- AC switchgear
- Generator
- DC Plant & distribution
- Battery stands

If desired, this course can be separated into a 1 day course covering either the power or grounding disciplines.

# Power and Grounding 101 Power / Grounding Fundamentals

**Target Audience:** This course is broadly designed for network engineering and operations people who will work with or near telecommunications power equipment. This course is intended for both the newcomer and the experienced employee.

**Course materials supplied:** A copy of all slides presented and safety glasses are provided.

**Min/Max class size:** Although the target class size is 20 students, any class size from 5 to 100 is possible.

**Prerequisite skills:** General familiarization with central offices

**Cost:** As this is a suit-cased course, travel and living time and expense can have a significant impact on overall cost as will the availability of suitable conference room facilities. Please contact us for a site-specific quotation. We'll need to know the approximate headcount, where in the country and whether a suitable conference room is available.

**For more information:** Please contact us at (215) 880-2488 or email [dan@danmcmenamin.com](mailto:dan@danmcmenamin.com)