

Marine Electrical Systems

The *Marine Electrical Systems* course is presented in seven chapters that start with an explanation of what electricity is, followed by discussions on boat electrical wiring, DC and AC electrical systems, galvanic and stray current corrosion, lightning protection, and ends with troubleshooting of boat electrical problems.

The course includes detailed instructions on how to use a multimeter, how to solder and crimp electrical wiring circuits, and how to read electrical wiring diagrams. This course can be used as a reference guide for anyone interested in properly maintaining their boat electrical system.

This course is written such that it requires nine two-hour sessions.

- **Day 1 - Introduction, Chapter 1:** Properties of Electricity
- **Day 2 - Chapter 2:** Boat Electrical Wiring Practices
- **Day 3 - Chapter 3:** Direct Current Power
- **Day 4 - Chapter 4:** Alternating Current Power
- **Day 5 - Chapter 5:** Galvanic and Stray Current Corrosion
- **Day 6 - Chapter 6:** Lightning Protection
- **Day 7 - Chapter 7:** Troubleshooting Part 1; on-the-boat optional
- **Day 8 - Chapter 7:** Troubleshooting Part 2
- **Day 9** - Review and Examination

