

ELECTRICAL (ELTC)

ELTC 101 Foundations of Electricity 4 Credit Hour(s)

Prerequisite: CRFT 101 (may be taken concurrently)

Foundations of Electricity is a practical course combining lecture and hands-on instruction. Topics include: Orientation to the Electrical Trade; Electrical Safety; Introduction to Electrical Circuits; Electrical Theory; Introduction to the National Electric Code; Device Boxes; Hand Bending; Raceways and Fittings; Conductors and Cables; Basic Electrical Construction Drawings; Residential Electrical Services; Electrical Test Equipment.

Offered: Resident

ELTC 201 Intermediate Electricity 4 Credit Hour(s)

Prerequisite: ELTC 101 and CRFT 101

Intermediate Electricity is a practical course combining lecture and hands-on instruction. Topics include: Alternating Current; Motors: Theory and Application; Electric Lighting; Conduit Bending; Pull and Junction Boxes; Conductor Installations; Cable Tray; Conductor Terminations and Splices; Grounding and Bonding; Circuit Breakers and Fuses; Control Systems and Fundamental Concepts.

Offered: Resident

ELTC 301 Advanced Electricity 4 Credit Hour(s)

Prerequisite: ELTC 201 and CRFT 101

Advanced Electricity is a practical course combining lecture and hands-on instruction. Topics include: Load Calculations-Branch and Feeder Circuits; Conductor Selection and Calculations; Practical Applications of Lighting; Hazardous Locations; Overcurrent Protection; Distribution Equipment; Transformers; Commercial Electrical Services; Motor Calculations; Voice, Data, and Video; Motor Controls.

Offered: Resident

ELTC 401 Special Topics in Electricity 4 Credit Hour(s)

Prerequisite: ELTC 301 and CRFT 101

Special Topics in Electricity is a practical course combining lecture and hands-on instruction. Topics include: Load Calculations-Feeders and Services; Health Care Facilities; Standby and Emergency Systems; Basic Electronic Theory; Fire Alarm Systems; Specialty Transformers; Advanced Controls; HVAC Controls; Heat Tracing and Freeze Protection; Motor Operations and Maintenance; Medium-Voltage Terminations/Splices; Special Locations; Introductory Skills for the Crew Leader.

Offered: Resident