

# IEC's Electrical Apprenticeship Program

## 3rd Year Course Outline



### *First Semester*

Introduction to Grounding and Bonding

First Aid/CPR/AED Training

General Requirements for Grounding and Bonding

System Grounding I

System Grounding II

Grounding Electrode System and Grounding Electrode Conductor

Enclosure, Raceway, and Service Cable Connections - Bonding

Equipment Grounding and Equipment Grounding Conductors

Methods of Equipment Grounding and Grounding of Specific Equipment

First Semester Mid-Term Exam

Printreading: Project Design, Development, and Specifications

Printreading: Survey, Civil, and Structural Drawings

Printreading: Architectural Drawings I

Printreading: Architectural Drawings II

Printreading: MEP, M, E, P, and Special Prints

Project Planning: Foreman Training

First Semester Exam Review

First Semester Final Exam

### *Second Semester*

Electrical Quantities, Circuits, Test Instruments, and Safety

Manual Control Circuits: Devices and Symbols – Logic and Diagrams

Introduction to Contactors and Relays

Applications Using Contactors and Relays

Manual and Automatic Control Devices

Ladder Diagrams Using Manual and Automatic Control Devices

Lab

Magnetic Motor Starters

Lab

Second Semester Mid-Term Exam

Motor Overload Protection and Connections

Lab

Reversing Motor Controllers, Starters, and Motor Connections

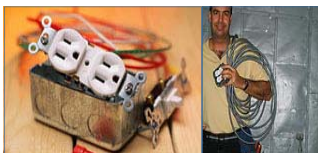
Lab

Latching and Alternating Relays and Jogging Circuits

Lab

Second Semester Final Exam Review

Second Semester Final Exam



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