

## **Course Objectives: ELAP 1580, Electrical Apprenticeship 8**

### **Program Description:**

The Electrical Apprentice program (ELAP) consists of eight courses, spanning a four year (8,000 hour) working apprenticeship. The ELAP program meets classroom training requirements for Apprentice Electricians registered with the Wyoming State Fire Marshal's Office. The program (student) outcomes are as follows:

1. Utilize the National Electrical Code (NEC) for electrical design and installation
2. Interpret electrical drawings
3. Design motor control circuits
4. Apply electrical theory to practical electrical problems

Each student completes one course per semester (Fall and Spring) for four years while employed as an apprentice electrician. The program is designed to assist apprentices in obtaining the skills and knowledge needed to pass the licensing exam at the end of their apprenticeship and to be successful as licensed Journeymen.

### **Course Purpose:**

ELAP 1580 Electrical Apprenticeship 8 is the eighth in a series of eight ELAP classes. Topics include heating ventilating and air conditioning (HVAC), heat trace, motor operations, medium voltage splices, special locations, and crew leadership. The application of the National Electric Code (NEC) is incorporated throughout the course.

### **Course Outcomes:**

Upon completion of ELAP 1580 Electrical Apprenticeship 8, the student will:

1. Apply the NEC to HVAC, heat trace, and special installations
2. Describe the procedures for installing medium voltage splices
3. Explain the key elements of operating and maintaining electric motors
4. Summarize the principles of crew leadership

### **Program Outcomes** (*targeted in this course*):

1. Utilize the National Electrical code for electrical design and installation