



## **Facility Maintenance & Repair**

This development course is available in both virtual and in-person, instructor-led formats, it is a two-day facility maintenance and repair course designed to meet the essential needs of every facility maintenance technician. This is a unique course in that it covers the fundamentals of electrical, HVAC, and mechanical maintenance tasks in a single two-day workshop. It also includes basic safety skills that every maintenance worker needs to know.

### **Description:**

This development course is ideal for new hires as well as experienced technicians who need a refresher. It provides an excellent base for the more in-depth development that TPS offers in the electrical and mechanical categories.

### **Course Outline:**

#### **Day One - Topics**

Basic Electrical Skills:

1. Electrical safety in the workplace: NFPA 70E
2. When and how to select the necessary personnel protective equipment (PPE)
3. Lockout/Tagout/Tryout (LOTOTO)
4. Meter selection and safety
5. Electrical fundamentals (Voltage, Current, & Resistance)
6. AC/DC and their applications
7. Single & three phase

#### **Day Two - Topics**

8. Transformers and distribution
9. How to select and replace switches and receptacles
10. Wiring techniques
11. Checking and replacing fuses
12. Proper use of GFCIs



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13. Replacing light fixtures/ballast
14. Electric motor basic troubleshooting
15. How to read electrical schematics
16. Preventive maintenance

#### Basic Mechanical and HVAC Skills:

1. Mechanical Safety in the workplace
2. Use of hand tools
3. Ladder safety
4. Chemical handling safety
5. Proper lifting techniques
6. HVAC system fundamentals
7. Bearing fundamentals (types, installation, & application)
8. Lubrication
9. V-belts (types, alignment, & proper tensioning)
10. Pumps, blower, & fans fundamentals
11. Fire extinguisher use and inspection