

# Air Conditioning & Refrigeration Hands-on Training



A DIVISION OF ECPI UNIVERSITY

Maintaining air conditioning systems is two-fold. Troubleshooting and immediate action is required to repair issues as they occur. Proper preventive maintenance can lessen the frequency of the problems and lengthen equipment life.

This class provides the basic principles and operation of Air Conditioning and Refrigeration Systems along with the use of refrigeration test instruments and service equipment such as manifold gauges, recovery machines, vacuum pumps, charging scales, leak detections and micron gauges.

\*NATE and ESCO EPA 608 certifications can be obtained through this course. CEU's are also available and should be declared to your Salesperson before the start of the class as some states require submission before the class starts.

## WHAT THIS COURSE COVERS

- Air Conditioning Principles
- Refrigeration System Operation
- Safe Handling and Use of New Refrigerants
- Energy Conservation Measures

## COURSE OUTCOMES

- Understanding of Basic HVAC System Principles, Components, and Operation.
- Use of HVAC Tools and Test Equipment Such as Manifold Gauges, Recovery Machines, Vacuum Pumps, Charging Scales, Leak Detection, and Micron Gauges.
- Familiarity with the Characteristics, Handling and Storage of Refrigerants, and Refrigerant Oils.

## WHO SHOULD TAKE THIS

- This is Part of Our Curriculum for Apprentice and Experienced HVAC Technicians
- Electricians
- Mechanics
- Environmental Health & Safety Personnel
- Maintenance Technicians
- Plant & Facility Maintenance Technicians
- Energy Management Personnel

## COURSE AGENDA

- Air Conditioning and Refrigeration Overview
- Tools and Test Equipment
- Refrigerants and Refrigerant Oils
- Compressors
- Evaporators
- Metering Devices
- Condensers
- Piping and Accessories
- Heat Pump Theory and Components

Lecture

Hands-on

• **ONSITE:** 3-days (24 hours)

• **LIVE ONLINE:** N/A



ONSITE - TRAINING TOUR - LIVE VIRTUAL - ONLINE - HANDS ON - AUDITS - CONSULTING - **TRAINED WORKERS. STRONGER COMPANIES.**  
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AC Course Overview and Agenda v09062024.docx