

COPELAND™

Copeland™ Refrigeration Certifications

HVAC/R SYSTEM FUNDAMENTALS

NC3 and Copeland help shape tomorrow's workforce through certification programs, industry supported curriculum and hands-on training. Students receive classroom instruction on refrigeration system components and maintenance procedures.

PROGRAM OBJECTIVES

- ◆ Identify refrigeration system components and describe the role they play in system operation.
- ◆ Describe the role of refrigerant in a refrigeration system.
- ◆ Calculate superheat and sub-cooling.
- ◆ Recover refrigerant from a refrigeration system and perform a system evacuation.
- ◆ Charge a refrigeration system with refrigerant.
- ◆ Trace electrical circuits on a refrigeration system using a wiring diagram.
- ◆ Gather basic pressure, temperature and electrical system operating information from a working system.

PROGRAM OUTCOMES

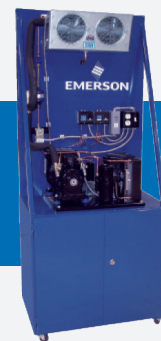
- ◆ Students that complete the HVAC/R System Fundamentals certification will demonstrate their understanding of electrical and mechanical operation of an HVAC/R system.
- ◆ Students that complete the Refrigeration System Electrical Operation and Maintenance certification will correctly perform system component wiring tasks.
- ◆ Students that complete the Refrigeration System Mechanical Operation and Maintenance certification will correctly perform refrigeration maintenance tasks including a replacing system filter drier, low-pressure control, valve plate, and compressor.

COURSE CONTENTS INCLUDE:

- ◆ Working with Copeland Mobile Apps
- ◆ HVAC/R System Fundamentals and Best Service Practices
- ◆ HVAC/R System Components
- ◆ Compressor Fundamentals
- ◆ Refrigerants and Oils
- ◆ Refrigerant Recovery, Evacuation and Charging

HANDS-ON TRAINING

Students perform electrical and wiring tasks using an Emerson Refrigeration System Simulator.



For more information, contact NC3 at nc3.net.



Copeland™ is a proud partner of the National Coalition of Certification Centers. Copeland™ Certifications are developed and administered by NC3 (National Coalition of Certification Centers) and are compatible with other industry recognized certifications.