



Refrigeration Fundamentals

1. Basic Refrigeration <10-12 hours>

- A. Basic Components
- B. P-H Diagram (Pressure vs Enthalpy)
- C. P-V Diagram (Pressure vs Volume)
- D. Effect Of SST & SCT On Capacity
- E. Effect Of Subcooling & Superheat On Capacity
- F. Effect Of Pressure Drops
- G. Capacity Control Methods

Purpose: Basic Refrigeration helps you to understand what the basic components & control schemes of a mechanical refrigeration system are and how they work together. You will learn how certain design and application variables affect the overall capacity and efficiency of the Mechanical Refrigeration System.

2. Refrigerant Piping <10-12 hours>

- A. Refrigerant Piping Requirements
- B. Suction Line
- C. Discharge Line
- D. Liquid Line
- E. Hot Gas Bypass Line
- F. Double Riser

Purpose: Refrigeration Piping is a very practical, step-by-step procedure that prepares the student to design future refrigerant piping systems as well as trouble-shoot existing systems for problems that cause ineffective operation or even premature failure of the compressor.

3. Refrigerants & Our Environment <2 hours>

- A. History of CFCs
- B. Montreal Protocol
- C. Current Legislation
- D. The Future Of Mechanical Refrigeration

Purpose: Refrigerants and our Environment helps you to understand how significantly the 1987 Montreal Protocol changed our industry. This talk helps you to better understand where we have come from and where we are heading in regards to legislation related to both Ozone Depletion and Global Warming.