

**Learning Topic: Technical (Plant Processes & Operations).**

**Course Name: Refrigeration**

**Reference Code: PLOP 116**

### Course Overview:

This course is one of the basic training courses for any operation staff member.

This course covers the original Refrigeration Basics section. It covered a lot of material but this was done by just barely skimming the surface of things. The course gives a general idea of what refrigeration is and how it is accomplished.

The course then investigates all components of a mechanical refrigeration system, how they work and how to control them.

### Course Objectives:

**Applying the concepts covered in this training course, delegates will be able to:**

1. Understand the concept of refrigeration.
2. Describe the basic components of a mechanical refrigeration system.
3. Describe the applications of mechanical refrigeration systems.
4. Describe how to control a mechanical refrigeration system.

### Training Methodologies:

The training methodology is interactive and is suitable for all employees involved in maintenance and operations management enhancing the following:

- Pre-test and Post-test
- Variety of Learning Methods & examples
- Presentation
- Lectures
- Group Work

### Who should attend?

Operation engineers

#### United Arab Emirates

Emirates Towers, Level 41 Sheikh Zayed Road  
Dubai-UAE. P.O Box 3103

Tel.:0097143132317

#### Kingdom of Saudi Arabia

Khobar Gate Tower  
King Fahad Street , Khobar 31952

Tel.: 00966133308334

#### Kingdom of Saudi Arabia

101 Business Tower, 8th Floor  
Al Jubail 35513, Bldg# 9278 ,KSA

Tel.: +966 13 361 5552

Operations technicians

Operators

Maintenance technicians

Any interested plant personnel in stores, warehouse, safety, procurement, logistics...etc.

## Training Outline:

### Day 1:

Course Introduction & Lesson 1: Refrigeration Basics, Principles of heat transfer & Main Components

### Day 2:

Lesson 2: Condensing Unit, Definitions, Charging

### Day 3:

Lesson 3: Heat Pumps, Split System Heat Pumps

### Day 4:

Lesson 4: Controls, Thermostatic Control, Pressure Control, Operating & Safety Controls

### Day 5:

Lesson 5: Operating & Safety Controls, Pump Down System, Relays, Contactors & Course Conclusion

**Duration:** 5 Days

**Venue:**

**Numbers of hours:** 30 Hours

**Time:** 08:00 AM -02:00 PM

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