



CHEMICAL PROCESS FAMILIARISATION COURSE

COURSE DESCRIPTION

CPTC's Chemical Process Familiarisation Course is a practice-oriented training in its industry scale process plant. It provides an overview of chemical process operation, process control and equipment for engineers and technicians from different disciplines of engineering or with no exposure in plant operation. The curriculum is structured into 5 competencies as shown below. The trainees will have hands-on exposure in operating of utilities, flare system, distillation column, furnace, pressurized vessel, instrumentations, control valve, plant safeguarding system and Distributed Control System (DCS).

COURSE OBJECTIVE

On successful completion of the course, trainees will be competent in :

- Chemical Process Plant Overview
- Safety Orientation and Emergency Procedures
- Do and Don't in Chemical Process Plant
- Engineering Drawing, e.g. Process Flow Diagrams (PFDs) and Piping & Instrumentation Diagrams (P&IDs)
- Process utilities operation like cooling water, plant air and instrument air, steam, nitrogen and fuel gas
- Flare operation
- Understanding distillation process chemistry, distillation column and its components, and distillation process control & operation
- Operating DCS controls and field instrumentation
- Commissioning and decommissioning of furnace
- Process line-up for plant operations

The trainees will also:

- Acquire proper plant safety attitude and aptitude
- Acquire overview of chemical plant process operations, process control and equipment operation.
- Experience working in process plant environment
- Understand shift team dynamics and be a team player

FOR WHOM

Engineers or process technicians from different discipline of engineering, like software engineer, DCS programme designer, mechanical engineer, electrical engineer and instrumentation engineer.

Engineering consultant who has no exposure to plant operation.

COURSE LEADERS

Our course leaders are well qualified and skilled Process Specialists and Technologists with years of process and operational experience.

CERTIFICATE

A certificate will be issued to trainees who successfully complete the chemical process familiarisation course.

Note:

The Chemical Process Technology Centre (CPTC) is a national training infrastructure owned by EDB, and managed and operated by Petrofac Training. CPTC is dedicated to enhance the manpower competencies of the oil, gas and petrochemicals industry.

COURSE INFORMATION

Course Code	: CT8007
Day/Time	: Day training (9.00 am to 5.00 pm)
Duration	: 3 Days
Venue	: Chemical Process Technology Centre 81 Jurong Island Highway Singapore 627837

COURSE ADMINISTRATION

Registration

For registration, please return the registration form together with the appropriate payment by cheque made payable to "Petrofac Training Pte Ltd".

Enquiries

Tel: 6880 2000 Fax: 6896 7151

Course Fee Subsidy/Payroll Subsidy
Not Applicable.



COURSE OUTLINE

Competency #1 - Safety Management & Plant Overview

- 1) CPTC Process Plant Overview
- 2) Safety Orientation
- 3) Do and Don't in Chemical Process Plant
- 4) Emergency Procedures
- 5) Engineering Drawing, e.g. Process Flow Diagrams (PFDs) and Piping & Instrumentation Diagrams (P&IDs)

Competency #2 - Process Utilities

- 1) Cooling Water System
- 2) Air System
- 3) Steam System
- 4) Nitrogen System
- 5) Fuel Gas System
- 6) Flare Operation
- 7) Field Monitoring & Hazards Discussion

Competency #3 - Distillation System

- 1) Basic Principles
- 2) Distillation Column Components and Functions
- 3) Distillation Process Control
- 4) System Commissioning and Decommissioning

Competency #4 - Instruments & Control

- 1) Operation of Control Valves and Actuators
- 2) Operation of Distributed Control System (DCS)
- 3) Safeguarding System (Interlock System)

Competency #5 - Furnace & Burner Management System (BMS)

- 1) Furnace Components and Principles
- 2) Burner Management System
- 3) Furnace Commissioning and Decommissioning
- 4) Furnace Operations