

Learning Topic: Chemical Engineering for Non-Chemical Engineers.

Course Name: Chemical Engineering for Non-Chemical Engineers.

Reference Code : SAF 312

Description:

Chemical Engineering is a branch of engineering which is concerned with the design, construction, and management of factories in which the essential processes consist of chemical reactions, petrochemicals processes, Pharmaceutical factories, and oil & Gas.

It is the task of the chemical engineer to select and specify the design that will best meet the particular requirements of production and the most appropriate equipment for the new applications.

This training course will enable the participants to have a better understanding of the processes and operations treated by chemical engineering, the trainees will gain awareness with regard to the variables of operations and how to control them.

Course Objective:

Upon completion of this course, successful delegates will be able to:

- Interpret flow sheets and process flow diagrams
- Develop and understand mass and energy balances in process design
- Explain about fluid flow, pumps and compressors, and mixing
- Discuss heat transfer equipment and their design, including heat exchangers
- Discuss waste minimization and treatment
- Learn how to control processes
- Understand the safety and environmental responsibility of process engineering

Programme Methodology:

This program consists of modules containing lecture content, skill assessments, participative discussions, video presentations and delegate exercises in order to create high impact training. Through case studies, you'll see the concepts you learn in action so you can apply them in your workplace when collaborating with chemical engineers on projects, chemistry scale-ups, process evaluations and other initiatives.

United Arab Emirates

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

Kingdom of Saudi Arabia

Khobar Gate Tower
King Fahad Street , Khobar 31952

Kingdom of Saudi Arabia

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

Who Should attend?

- Technicians working in chemical processes and environment
- SHE members who wish to learn cores of process chemistry
- Engineers (non-chemical engineers) who wish to expand their knowledge in the process industry

Course Outline:

- Introduction
- Fundamentals of Chemistry
- Overview of the Chemical Processing Industry
- Review of Process Incidents
- Safety for the Processing Industry
- Description of a Hydrocarbon Molecule
- Types of Hydrocarbon Molecules
- Definition and Function of a Catalyst
- Introduction to Unit Operations Equipment
- Distillation
- Absorption
- Heat Exchange
- Reactors
- Pumps
- Compressors
- Furnaces
- Introduction to Fluid Flow and Mixing
- Introduction to Process Control and Instrumentation
- Introduction to the Energy and Material Balance
- Introduction to Thermodynamics and Equilibrium
- Introduction to Reaction Engineering
- Introduction to Separation and Mass Transfer Operations
- Distillation
- Adsorption
- Crystallization
- Filtration

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Course Duration	Date	Venue	Course Fee
5 Days			

Time: 08:00 AM -03:00 PM

Numbers of hours: 30 Hours

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