

Heat Exchanger Design and Operation Z MEC-37

Duration

Three days 18 Hours

Who should attend?

This course is designed for individuals this course is ideal for chemical & mechanical engineers who are engaged in plant operations, technical Services & project design; or with assignments involving heat exchanger Sizing specification, or operation



Language

Arabic, English

Overview

Explore recent developments in heat exchangers thermal design of shell and tube exchangers air-cooled heat exchangers and re-boilers. Also learn how to diagnose and correct operating problems you require a working knowledge of recent developments in heat exchanger technology and in the diagnosis and correction of operating problems. This Course Examines in detail shell-and tube heat exchanger technology with practical tips on how to minimize fouling and improve chances of trouble-free operation Cover other types of exchangers, including gasket plate, spiral plate and air-cooled equipment , Participants will Gain a better understanding of the thermal design of shell-and-tube heaters, coolers, column re-boilers, and condensers and Learn how to troubleshoot diagnose, & correct operating problems particularly distillation column re-boilers & condensers

Topics

- Types and Applications of Heat Exchangers
- Thermal Design of Shell-and-Tube Exchangers
- Typical Causes of Fouling
- Selection of Fouling Resistances
- Extended Surfaces: When to Use Extended Surfaces
- Calculation of Fin Efficiencies Air-cooled Heat Exchangers
- Forces vs. Induced Draft
- Advantages/Disadvantages vs. Water-Cooled
- Exchangers Compact Heat Exchangers E-Ntu Method
- Gasket Plate; Spiral Plate Plate-Fin Re-boilers and Vaporizers Pool Boiling
- Flow Boiling Guidance on Re-boiler Selection
- Condensers Pure Component Condensation

- Partial Condensation
- Simultaneous Heat and Mass Transfer
- Guidance on Selection of Condensers
- Operating Problems in Heat Exchangers