



Catalytic Reformer and CCR - Basic

Course Introduction:

This course is designed to provide participants with a foundational understanding of catalytic reforming technology, including the operation of CCR units. As the demand for cleaner and more efficient fuels rises, it is essential for industry professionals to grasp the intricacies of catalytic reforming to optimize refinery operations and product quality.

Throughout the course, participants will explore key topics such as the chemistry of catalytic reforming, reactor design, catalyst selection, and the role of CCR in improving process efficiency. By examining industry standards and case studies, attendees will gain insights into the operational challenges and best practices for managing catalytic reforming processes effectively. This course aims to equip participants with the knowledge and skills necessary to understand and contribute to catalytic reforming operations within the petroleum sector.

Course Objectives:

By the end of the program, participants will be able to:

- Understand the fundamental concepts of catalytic reforming and its significance in refining.
- Learn about the chemical reactions involved in the reforming process.
- Explore the design and operation of catalytic reformers and CCR units.
- Analyze catalyst selection, regeneration, and performance evaluation.
- Familiarize participants with process optimization techniques and industry best practices.

Who Should Attend?

This course is intended for Refinery engineers and operators, Process engineers and technicians in petroleum refining, Quality assurance and control personnel and Project managers in the oil and gas sector.

Course Outline:

Day 1: Introduction to Catalytic Reforming

- Overview of petroleum refining and the role of catalytic reforming
- Key objectives and benefits of catalytic reforming processes
- Types of feedstocks suitable for catalytic reforming

Day 2: Chemistry of Catalytic Reforming

- Understanding the chemical reactions involved in reforming
- The importance of isomerization, dehydrogenation, and hydrocracking
- Reaction kinetics and thermodynamics in catalytic reforming

Day 3: Design and Operation of Catalytic Reformers

- Overview of catalytic reformer design principles
- Key components and layout of a catalytic reformer unit
- Operational parameters and their impact on performance

Day 4: Continuous Catalyst Regeneration (CCR)

- Introduction to continuous catalyst regeneration and its advantages
- Mechanisms of catalyst deactivation and regeneration
- Process flow and equipment used in CCR units

Day 5: Process Optimization and Best Practices

- Techniques for optimizing catalytic reforming operations
- Monitoring and control strategies for reformer performance
- Industry standards and best practices in catalytic reforming

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work

Course Fees:

To be advice as per course location. This rate includes participant's manual, Hands-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

المركز العالمي للتدريب والتطوير
International Centre For Training & Development

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session