



Refining Process Yields Optimization

Course Introduction:

This course is designed to provide participants with a comprehensive understanding of refining processes and the strategies to optimize yields. In the competitive landscape of the refining industry, maximizing output while minimizing costs and environmental impact is crucial. This five-day course will explore various refining techniques, the chemistry involved, and the latest technologies that enhance yield efficiency. Through a blend of theoretical knowledge and practical applications, participants will learn how to analyze and improve refining processes effectively.

Participants will engage in case studies and group discussions to apply optimization techniques in real-world scenarios. By the end of the course, attendees will be equipped with the tools and methodologies necessary to enhance refining yields, ensuring improved profitability and sustainability in their operations.

Course Objectives:

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

- Understand the fundamental principles of refining processes and yield optimization.
- Analyze performance metrics and historical data to identify improvement areas.
- Apply optimization techniques to various refining processes.
- Explore advanced technologies that enhance yield and efficiency.
- Develop sustainable strategies for continuous yield improvement in refining operations.

Who Should Attend?

This course is intended for Refinery engineers and process technicians, Operations managers and supervisors in the refining sector, Quality assurance and compliance professionals, Research and development personnel in refining technologies.

Course Outline:

Day 1: Introduction to Refining Processes

- Overview of refining industry and its importance
- Key refining processes: distillation, cracking, hydrotreating, and reforming
- Understanding the composition of crude oil and its fractions
- Introduction to yield optimization concepts

Day 2: Yield Analysis and Performance Metrics

- Identifying key performance indicators (KPIs) for refining yields
- Techniques for yield measurement and analysis
- Analyzing historical data for performance improvement
- Case studies on yield analysis in refining operations

Day 3: Optimization Techniques in Refining

- Strategies for optimizing distillation and separation processes
- Techniques for maximizing yields in cracking processes
- Understanding catalyst performance and its impact on yields
- Practical exercises on process simulation and optimization tools

Day 4: Advanced Technologies and Innovations

- Exploring the role of digital technologies in refining optimization
- Implementing data analytics for process improvements
- Understanding the impact of energy efficiency on yields
- Case studies on innovations in refining technologies

Day 5: Sustainability and Yield Improvement Strategies

- Balancing yield optimization with environmental sustainability
- Regulatory considerations in refining processes
- Developing a continuous improvement plan for refining operations
- Final assessment and group presentations on optimization strategies

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.

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

