Mercury

Refinery Process Yields Optimization Training Course

20 - 24 Jul 2025
Cairo (Egypt)

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Ref.: 6061_257189 **Date:** 20 - 24 Jul 2025 **Location:** Cairo (Egypt) **Fees:** 3500 **Euro**

Introduction:

This refinery yield optimization and process improvement training program will present a detailed overview of the intricacies of refinery process yield optimization, from the crude oil feed to the finished products. Major refining processes are presented and discussed, including feedstock, feedstock preparation, operating conditions, catalysts, processing yield, product properties, and economics.

The refinery yield optimization and process improvement course is oriented toward the practical aspects of refinery operations as well as the terminology and economics of refining, with a particular focus on yield optimization strategies and refinery process optimization techniques.

Refinery Yield Optimization Techniques:

Within this refinery yield optimization and process improvement course, we delve into the various techniques and methodologies used to enhance yield optimization in refinery operations. A yield optimizer's role is to focus on refining specific operations to maximize output and minimize waste.

Understanding the meaning of yield optimization within the context of refinery process optimization, participants in the refinery yield optimization and process improvement course will learn the latest approaches to yield process improvement and how to employ process yield improvement strategies effectively. By examining the processing yield at each step, we aim to enhance the overall efficiency and profitability of refinery processes.

Targeted Groups:

- Process engineers, technologists, and operating and supervisory personnel engaged in refining activities that require a deeper understanding of processes yield improvement in their refinery.
- Refinery scheduling staff, blending staff, and crude oil buyers looking to enhance their knowledge of refinery yield and its impact on operations.
- Engineering and operations personnel are seeking, including those with limited or no broad refinery operating experience who wish to understand refinery process training.
- Technical sales personnel, equipment suppliers, and those involved in economic evaluations of refinery operations will benefit from this refinery training course.

Course Objectives:

At the end of this refinery yield optimization and process improvement course, participants will be able to:

- Understand the complex nature of refining and its operations, including the meaning of yield optimization and the role of a yield optimizer.
- Understand the drivers of the Petroleum Refining industry to maximize refinery yield through process optimization.
- Appreciate the purpose and nuances of all processes associated with the transformation of petroleum into finished products through yield in process improvement.
- Apply the learning to aid in the scheduling and optimization of the refinery process.
- Appreciate the implications of different feedstocks on product quality and product range.

Targeted Competencies:

At the end of this refinery yield optimization and process improvement course, target competencies will be able to:

- Overview of comprehensive knowledge of crude oil characteristics and processing yield.
- Have an in-depth understanding of refinery configuration, complexity, and refinery optimization methods.
- Master over primary refinery process operations for optimizing yield.
- Overview of awareness of environmental issues affecting refinery operations and their impact on process yield improvement.
- Develop strategic optimization strategies and methods for gas refinery processes.

Course Content:

Unit 1: Crude Oil Yields and Refinery Technology:

- Overview of origins and characteristics of crude oil.
- Understand the comprehensive assay of crude oil properties.
- Overview of crude oil products and refinery yield.
- Learn about a detailed look at Product specifications.
- In-depth focus on gasoline, kerosene/jet fuel, and fuel oil/diesel fuels.
- Petrochemical feedstocks.
- Understand the refinery's complexity.
- Explore the overall refinery flow and the interrelationship of processes.

Unit 2: Petroleum Refinery Processes:

- Crude processing overview.
- Understand desalting techniques and yield optimization.
- Overview of atmospheric distillation and maximizing processing yield.
- Vacuum distillation.
- Strategies for heavy oils processing and cocking and thermal processes.
- Overview of detailed learning on delayed coking, fluid coking, and flexi coking.
- Insights into visbreaking processes.

Unit 3: Process for Motor Fuel Production:

- Learn about the Detailed study of fluid catalytic cracking.
- Hydrocracking operations.
- Examination of Cat Cracking.
- Understand isomerization and its role in yield improvement.
- Understand alkylation and its significance.
- Evaluate hydrotreating processes.
- Learn about an analytical look at catalytic reforming.

Unit 4: Supporting Operations:

- Learn about techniques in blending for product specifications.
- Insights into Hydrogen production are a key to refinery process optimization.
- Establishment of refinery gas plants.
- Learn about acid gas treatment and its importance.
- Focus study on sulfur recovery plants and processing yield.

Unit 5: Refinery Economics:

- Delve into Residue Reduction techniques.
- Learn about asphalt and residual fuel as refinery outputs.
- Comprehensive cost estimation methodologies.
- Understand strategic economic evaluation and its impact on process yield.

Registration form on the :
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Complete & Mail or fax to Mercury Training Center at the address given below

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