MERCURY

Refinery Process Yields Optimization Training Course (8176)

18 – 22 April 2027
Kuala Lumpur (Malaysia)

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Ref: 8176_276362 **Date:** 18 – 22 April 2027 **Location:** Kuala Lumpur (Malaysia) **Fees:** 4900 Euro

Introduction:

This refinery process yields optimization training program will present a detailed overview of refining process yields, targeting production yield optimization. Participants will learn everything from the crude oil feed to the finished products, encompassing the gas refinery process and touching upon the intricacies of refinery process safety.

The refinery process yields optimization course will dissect major refining processes, including feedstock preparation, operating conditions, catalysts, yields, product properties, and economics. It is oriented toward the practical aspects of refinery operations, providing clarity on yield optimization meaning, as well as the terminology and economics of refining.

Targeted Groups:

- Process Engineers, Technologists, and Operating and Supervisory personnel engaged in the refining activities who have a minimum of experience and are required to understand and discuss issues related to their processes.
- Refinery scheduling staff, blending staff, and crude oil buyers
- Engineering and operations personnel, this training program will also be suitable for business, sales, technical, and scientific personnel with limited or no broad refinery operating experience, as well as Technical sales personnel.
- This refinery process yields optimization conference will benefit those who sell equipment or supplies to the refining industry and those who evaluate the economics of refinery operations.

Course Objectives:

By the end of this refinery process yields optimization course, the participants will be able to:

- Understand the complex nature of refining and its operations, including what is the refinery process and what is yield optimization.
- Understand the drivers of the Petroleum Refining industry to maximize process fluid yields, delving into the finer points of production yield optimization.
- Appreciate the purpose and nuances of all processes associated with processing petroleum into finished products.
- Apply the knowledge gained to aid in refinery scheduling and yield optimization.
- Understand the implications of different feedstocks on product quality and product range.

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Targeted Competencies:

By the end of this refinery process yields optimization course, the target competencies will:

- Crude oil characteristics
- Refinery configuration and complexity
- Understand major refinery process operations, like the oil refinery process and the oil and gas refinery process.
- Environmental issues affecting refinery operations
- Learn about the development of optimization strategies and methods for yield optimization.

Yield Optimization in Petroleum Refining:

Yield optimization in petroleum refining refers to strategically managing refining processes to maximize the production of valuable products from crude oil. This refinery process yields optimization course involves careful planning and execution of refinery process training, operations, and maintenance to enhance overall efficiency and profitability.

In this refinery process yields optimization course module, participants will explore the core concepts and techniques for achieving optimal yields, focusing on practical applications in real-world refinery settings.

Course Content:

Unit 1: Crude Oil Yields Refinery Technology:

- Crude Oil Origins and Characteristics.
- Crude Oil Assay and Properties.
- Crude oil products.
- Product specifications.
- Gasoline.
- Kerosene/Jet Fuel.
- Fuel Oil/ Diesel Fuels.
- Petrochemical Feedstocks.
- Refinery Complexity.
- Overall of Refinery flow: Interrelationship of processes.

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Unit 2: Petroleum Refinery Processes:

- Crude Processing.
- Desalting.
- Atmospheric distillation.
- Vacuum distillation.
- Heavy Oils Processing - Coking and Thermal Processes.
- Delayed Coking.
- Fluid Coking.
- Flexicoking.
- Visbreaking.

Unit 3: Process for Motor Fuel Production:

- Fluid catalytic cracking.
- Hydrocrack.
- Cat Cracking.
- Isomerization.
- Alkylation.
- Hydrotreat.
- Catalytic Reforming.

Unit 4: Supporting Operations:

- Blending for Product Specifications.
- Hydrogen production.
- Refinery Gas Plants.
- Acid Gas Treating.
- Sulfur Recovery Plants.

Unit 5: Refinery Economics:

- Residue Reduction.
- Asphalt and Residual Fuel.
- Cost Estimation.
- Economic Evaluation.