

TRAINING TITLE REFINING PROCESS YIELDS OPTIMIZATION

Training Duration

5 days

Training Venue and Dates

I RT377 I	fining Process Yields otimization	5	26-30 May 2025	\$5,500	DUBAI, UAE
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

• \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

The Refining Process Yields Optimization course is designed to provide participants with an in-depth understanding of how to improve and optimize yields in refinery operations. It covers the key concepts, technologies, and strategies used to maximize product yields while maintaining product quality, minimizing waste, and reducing operational costs. The course focuses on analyzing and optimizing different refining processes such as distillation, catalytic cracking, and hydro processing, as well as using process modeling, data analytics, and advanced control techniques to improve yields.

TRAINING OBJECTIVES

By the end of this course, participants will be able to:

- Understand the principles of refining process yields and their impact on refinery profitability.
- Learn techniques and strategies to optimize yield at different stages of the refining process.
- Gain knowledge of the technologies used in refining processes, such as distillation, cracking, and hydroprocessing.
- Develop skills in applying data analytics and process optimization tools to improve yields.

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• Understand the role of process control and monitoring in maximizing yield and minimizing losses.

WHO SHOULD ATTEND?

- Refining engineers and process engineers
- Operations managers and supervisors in refinery plants
- Technical staff involved in process optimization and quality control
- Production and maintenance engineers in the refining industry

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM:

Day 1: Introduction to Refining Process Yields

- Overview of refinery operations and key processes (distillation, cracking, hydrotreating, etc.)
- The importance of process yield optimization in refinery profitability
- Key factors influencing yields in refining processes
- Common refinery yield losses and their causes
- Setting yield targets and performance metrics

Day 2: Distillation Process Yield Optimization

- Basic principles of distillation and its role in refining
- Factors affecting distillation efficiency and product yield
- Techniques for optimizing distillation column performance

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- Distillation optimization through feedstock quality, temperature, and pressure control
- Troubleshooting common distillation issues to improve yields

Day 3: Cracking and Hydroprocessing Yield Optimization

- Overview of catalytic cracking and hydroprocessing in refining
- Factors affecting yields in catalytic cracking and hydroprocessing units
- Optimization strategies for maximizing conversion and minimizing by-products
- The role of catalysts in improving process yields
- Improving reactor performance and selectivity through temperature, pressure, and feedstock optimization

Day 4: Data Analytics and Advanced Process Control for Yield Optimization

- The role of data analytics in yield optimization
- Using process modeling and simulation tools to predict and optimize yields
- Advanced control techniques for maintaining optimal operating conditions
- Real-time data monitoring and performance dashboards
- Integrating process optimization tools with refinery control systems

Day 5: Strategies for Continuous Yield Improvement

- Implementing continuous improvement strategies for yield optimization
- The role of process monitoring, predictive maintenance, and reliability in maximizing yield
- Analyzing and reducing energy consumption without compromising yields
- Identifying opportunities for yield improvement in various refinery units

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NOTE:	
Pre-& Post Tests will be conducted.	
Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessment	<u>ts</u>
will be carried out.	

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