MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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HYDROCRACKER UNIT PROCESS (HCU) & DIESEL HYDROTREATING (DHT)

“Mastering Advanced Refining Processes for Optimized Fuel Production\””

Schedule

Date	Venue	Fees (Face-to-Face)
13 – 17 Sep 2026	Doha, Qatar	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

The Hydrocracker Unit (HCU) and Diesel Hydrotreating (DHT) processes are crucial in modern refining, ensuring high-quality diesel production and other valuable products. This training course covers the technical fundamentals, operational considerations, and troubleshooting techniques for both HCU and DHT units. Attendees will gain a deep understanding of the catalytic processes, key equipment, and how to optimize these units for maximum yield and efficiency.

Participants will leave with practical knowledge to maintain, troubleshoot, and optimize HCU and DHT units, contributing to improved refinery output and reduced operational downtime.

Objectives

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

- Understand the principles and operations of Hydrocracker Units (HCU) and Diesel Hydrotreating (DHT) processes.
- Optimize operations to improve diesel production and fuel quality.
- Learn the role of catalysts in HCU and DHT processes and how to manage them effectively.
- Troubleshoot common issues in HCU and DHT units, ensuring minimal downtime.
- Assess process parameters and improve unit efficiency and safety standards.

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Why Attend

- Learn advanced refining processes and the application of HCU and DHT in fuel production.
- Enhance your troubleshooting and optimization skills for better unit performance.
- Understand the catalytic processes that drive fuel quality and quantity.
- Gain practical insights into minimizing operational issues and enhancing safety.
- Improve your ability to operate and maintain complex refining systems efficiently.

Target Audience

This program is designed for:

- Refining engineers, process operators, and plant managers working with HCU and DHT units.
- Maintenance personnel responsible for the upkeep of refining equipment.
- Process engineers looking to optimize refining operations and improve product quality.
- Professionals involved in the development, troubleshooting, and operation of catalytic processes in refineries.

Individual Benefits

Key competencies that will be developed include:

- Advanced understanding of HCU and DHT operations in a refinery setting.
- Enhanced troubleshooting skills for addressing common process and equipment issues.
- Knowledge of catalyst management and its impact on fuel production.
- Techniques for optimizing production efficiency and fuel quality in refining.
- Understanding of safety measures in HCU and DHT operations, reducing potential hazards.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Increased refinery output and efficiency through optimized operation of HCU and DHT units.
- Reduced downtime and operational costs by addressing common unit issues effectively.
- Improved knowledge sharing and capability in refining process management.
- Enhanced ability to meet quality standards in diesel and fuel production.
- Strengthened compliance with environmental and safety regulations.

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Detailed analysis of HCU and DHT processes, catalysts, and the refining cycle.
- Case Studies – Real-world examples of successful operations and troubleshooting in HCU and DHT units.
- Workshops – Hands-on activities to identify and resolve common issues in refinery units.
- Peer Exchange – Group discussions on challenges and best practices in HCU and DHT operations.
- Tools – Practical tools for process optimization, troubleshooting, and catalyst management.

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 9:00 AM – 4:00 PM Daily Format: 3–4 Learning Modules | Coffee Breaks: 10:30 & 12:30 | Lunch Buffet: 01:00 – 02:00

Day 1: Introduction to HCU and DHT Processes

- Module 1: Overview of Hydrocracking and Diesel Hydrotreating Technologies
- Module 2: Key Equipment in HCU and DHT Units
- Module 3: Feedstock Selection and Pre-Treatment
- Module 4: Introduction to Catalysts and Their Role in Refining

Day 2: Operation of Hydrocracking Units (HCU)

- Module 1: HCU Operating Principles and Process Flow
- Module 2: Catalyst Selection and Management in HCU
- Module 3: Key Process Parameters in HCU Operations
- Module 4: Troubleshooting Common HCU Problems

Day 3: Diesel Hydrotreating (DHT) Process

- Module 1: DHT Principles and Applications in Diesel Production
- Module 2: The Role of Catalysts in Diesel Hydrotreating
- Module 3: Optimizing DHT for Better Diesel Quality
- Module 4: Troubleshooting DHT Unit Failures

Day 4: Troubleshooting, Optimization, and Safety in Refining

- Module 1: Identifying and Troubleshooting Common Issues in HCU and DHT
- Module 2: Optimizing HCU and DHT Units for Maximum Efficiency
- Module 3: Safety Protocols in HCU and DHT Operations
- Module 4: Preventive Maintenance Strategies

Day 5: Case Studies, Peer Exchange, and Practical Exercises

- Module 1: Case Study Review: Successful Operations of HCU and DHT Units
- Module 2: Peer Exchange on Refinery Process Optimization
- Module 3: Hands-on Troubleshooting and Process Improvement Exercises
- Module 4: Review and Wrap-up

Certification

Participants will receive a Certificate of Completion in Hydrocracking and Diesel Hydrotreating Processes, demonstrating their proficiency in optimizing operations and ensuring the efficient functioning of HCU and DHT units in refinery settings.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**