MAWA EVENTS

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

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REFINERY PROCESS YIELDS OPTIMISATION

"Maximise Product Yields, Minimise Waste, and Enhance Refinery Profitability Through Advanced Optimization Techniques"

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Maximising yields is one of the key objectives of refinery operations, directly affecting profitability, energy efficiency, and resource utilisation. Refinery process yields depend on crude quality, process unit performance, operational conditions, and product blending strategies. Optimising these yields requires a combination of technical knowledge, analytical skills, and advanced planning tools.

The Refinery Process Yields Optimisation course equips participants with a comprehensive understanding of yield management principles, process optimization strategies, and modern techniques to enhance refinery efficiency. The course focuses on improving product output, reducing energy consumption, and aligning operations with market demand, regulatory compliance, and sustainability goals.

Participants will gain hands-on experience in analysing refinery data, identifying bottlenecks, applying optimization models, and developing strategies to improve overall plant performance. Real-life case studies will illustrate how successful yield optimisation contributes to higher margins and operational excellence.

Objectives

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

- Understand the factors influencing refinery process yields.
- Analyse crude properties and process unit performance for yield optimisation.
- Apply linear programming (LP) and other modelling tools for yield maximisation.
- Identify operational bottlenecks and inefficiencies impacting yields.
- Develop strategies for energy-efficient and cost-effective production.
- Integrate process optimisation with product quality, safety, and environmental standards.
- Monitor, control, and continuously improve refinery performance.

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Why Attend

In a highly competitive market, maximizing refinery yields is essential for profitability and sustainability. This course provides practical skills to analyse operations, implement yield improvement strategies, and make informed decisions.

Participants will acquire tools to optimise crude selection, unit operations, and blending strategies, enabling them to enhance production efficiency and reduce operational costs. This training is valuable for professionals seeking to improve technical, analytical, and decision-making capabilities in refinery operations.

Target Audience

This course is designed for refinery and process professionals, including:

- Refinery Process Engineers
- Operations and Production Engineers
- Planning and Scheduling Specialists
- Optimization and Simulation Engineers
- Production Managers and Supervisors
- Technical Consultants and Analysts
- Energy and Efficiency Specialists

Individual Benefits

- Gain practical skills in refinery yield optimisation.
- Learn to analyse and improve process unit performance.
- Enhance problem-solving and decision-making capabilities.
- Increase proficiency in using optimisation tools and techniques.
- Improve career opportunities and technical expertise in refinery operations.
- Develop confidence in implementing sustainable and profitable solutions.

Organizational Benefits

- Increase refinery profitability through maximised product yields.
- Reduce energy consumption and operating costs.
- Minimise waste and optimise raw material usage.
- Improve process reliability and efficiency.
- Enhance product quality and compliance with regulatory standards.
- Build in-house expertise in process optimisation and performance management.

Instructional Methodology

The course combines theory with practical applications and industry case studies. Teaching methods include:

- Expert-led presentations and interactive lectures
- Case studies on yield optimisation and refinery efficiency
- Hands-on exercises using simulation and optimisation tools
- Group workshops and collaborative problem-solving
- Process flow and data analysis demonstrations
- Continuous feedback and Q&A sessions

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Course Outline

Module 1: Introduction to Refinery Process Yields

- Overview of refinery operations and product streams
- Factors affecting process yields
- KPIs for yield and performance evaluation

Module 2: Crude Properties and Their Impact on Yields

- Crude classification and quality analysis
- Effect of crude characteristics on distillation and conversion units
- Selection of optimal crude blends for maximised output

Module 3: Process Unit Performance Analysis

- Distillation, cracking, reforming, and hydrotreating units
- Identifying operational inefficiencies
- Monitoring and interpreting process data

Module 4: Yield Optimisation Techniques

- Linear programming (LP) for refinery optimisation
- Blending strategies and product allocation
- Energy efficiency and operational improvements
- Constraint management and bottleneck identification

Module 5: Advanced Optimisation Tools

- Process simulation and modelling software (HYSYS, Aspen Plus)
- Predictive analytics for process performance
- Real-time optimisation and feedback control

Module 6: Integrating Yield Optimisation with Operations

- Coordination with production planning and scheduling
- Aligning optimisation with safety and environmental standards
- Continuous improvement and KPI monitoring

Module 7: Economic and Strategic Considerations

- Cost-benefit analysis of optimisation initiatives
- Refinery margins and financial impact
- Strategic decision-making for yield improvements

Module 8: Case Studies and Best Practices

- Review of successful yield optimisation projects
- Lessons learned from operational challenges
- Group exercises and problem-solving workshops

Certification

Upon successful completion, participants will receive a Certificate in Refinery Process Yields Optimisation, recognizing their expertise in maximizing refinery output, enhancing operational efficiency, and implementing yield improvement strategies.

This certification demonstrates the participant’s capability to effectively optimise refinery operations, improve profitability, and ensure sustainable and safe performance in modern refining facilities.

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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.

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

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