Petroleum Refining - Production Planning, Scheduling and Yield Optimisation
01 - 12 Apr 2018, Dubai
09 - 20 Dec 2018, Dubai
Petroleum Refining—Production Planning, Scheduling and Yield Optimization

Introduction

Petroleum Refining—Production Planning, Scheduling and Yield Optimization is a hands-on, stimulating learning experience. The training seminar will be highly interactive, with opportunities to advance your opinions and ideas. Participation is encouraged in a supportive environment.

To ensure the concepts introduced during the seminar are understood, they will be reinforced through a mix of learning methods, including lecture style presentations, open discussions, case studies, and short videos. Hands on computer software and simulations will be provided to illustrate the application of planning and scheduling. The case studies provided for group work will be re-enforced with practical exercises and ample opportunities for deliberation and sharing of experiences.

Attendees will have the opportunity to develop personal competencies and build up expert knowledge of crude oil production planning, scheduling and yield optimization in a range of equipment.

Objectives

The key objectives of this comprehensive training seminar are as follows:

- Gain an appreciation of production planning and scheduling tools that will be useful for planning of crude and product deliveries
- Differentiate and appreciate the similarities and differences between planning and scheduling
- Understand the principles of scheduling optimization and promote efficient refining operations, and yield optimization
- Learn the skills for crude selection and optimization that result in improved profitability
- Develop the skills necessary to apply blending techniques using excel
- To familiarize and understand the various refinery types and appreciate how refining complexity impacts refining optimization and refining margins
- Comprehend the importance quality giveaways and learn how use practical excel spreadsheets for blending calculations to reduce quality giveaways
- Use hands on software that allows professionals in the industry to choose different crude diets to optimize refinery utilization efficiency and profitability

Who Should Attend?

- Refining professionals working in the industry either as refining technologists or in refining operations and engineers
- All professionals involved in Production, Planning and Scheduling
- Process engineers and technologists engaged in planning and scheduling activities and who are required to understand and discuss issues related to their industry
- Operations personnel including shift supervisors
- Marketers and refinery planners
- Blending professionals
- Refining Technologists
- Other engineers who would like a further understanding of the complex refining processes
- Accountants, marketers and other professionals who would like understand the complexities and terminology of Production Planning & Scheduling in Petroleum Refineries
- Anyone who wishes to update themselves on the methods used in this important field and learn how to implement error free methods for the benefit of their organizations
DAY 1

Application of Planning and Scheduling
- Overview of Planning and Scheduling in Oil Refineries
- Refinery Complexity
- Refinery Configuration
- Integrated Refineries
- Choice of Crude
- Crude Oil Scheduling
- Capacity utilization of Crudes & Operational Efficiency
- Workshop - Cut-point Optimization

DAY 2

Improving Product Movements and Releasing Tankages
- Crude Assay
- Intermediate Feed Characteristics
- Yields and Properties
- Different Process Units
- Storage Tanks
- Custody Transfer / Measurements
- Class Exercises: Using Excel - Yield Optimization

DAY 3

Product Blending Rules
- Product Specifications
- New Trends in Fuel Production
- Environmental Issues
- Crude Oil Pricing Regimes
- Product Netback
- Class Workshop: Blending Exercises

DAY 4

Refinery Flow Sheets
- Refinery Flow-sheets
- Simplified Material Balance
- Product Inventory Control
- Product Quality Control
- Fixed Composition Blend
- Capacity Control / Constraints
- Availability of Feedstock / Control
- Case Study: Gasoline Blending and Its Impact on Operations

DAY 5

Refinery Planning and Scheduling
- Petroleum Product Movement and Product Exchange
- Marginal Depot Supply and movements
- Crude Selection Strategies
- Linear Programming and Fundamentals of Supply Chain Management for Refining
- Refinery Planning and Scheduling
- Discussion and Summary
DAY 6
Crude Oil Yields Refinery Technology
• Introduction to Crude Oil Origins & Characteristics
• Crude Oil Assay and Properties
• Crude Oil Products & Product Specifications
  • LPG
  • Gasoline
  • Kerosene / Jet Fuel
  • ACO / Diesel Fuel Oil
  • Petrochemical Feedstocks
• Overall Refinery Flow: Interrelationship of Processes

DAY 7
Petroleum Refinery Processes
• Crude Processing
• Desalting
• Atmospheric Distillation
• Vacuum Distillation
• Heavy Oils Processing / Bottom of the Barrel Upgrading
  • Coking and Thermal Processes
  • Delayed Coking
  • Fluid Coking
  • Flexicoking
  • Visbreaking
• Case Study – Example

DAY 8
Process for Motor Fuel Production
• Fluid Catalytic Cracking
• Hydrocracking
• Cat Cracking
• Isomerization
• Alkylation
• Hydrotreating
• Catalytic Reforming
• Case Study – Example

DAY 9
Supporting Operations
• Blending for Product Specifications
• Hydrogen Production
• Refinery Gas Plants
• Acid Gas Treating
• Sulfur Recovery Plants
• Utilities
• Case Study – Example

DAY 10
Refinery Economics
• Residue Reduction
• Asphalt and Residual Fuel
• Refinery Complexity and Netback
• Economic Evaluation
• Cost Estimation
• Case Studies
• Group Discussions
• Program Evaluation & Summary
Petroleum Refining-Production Planning, Scheduling and Yield Optimisation

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<thead>
<tr>
<th>Code</th>
<th>Date</th>
<th>Venue</th>
<th>Fees</th>
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<tbody>
<tr>
<td>OG011</td>
<td>01 - 12 Apr 2018</td>
<td>Dubai</td>
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**REGISTRATION DETAILS**

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**PAYMENT DETAILS**

☐ Please invoice my company
☐ Cheque payable to GLOMACS
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**CERTIFICATION**

Successful participants will receive GLOMACS’ Certificate of Completion

**4 WAYS TO REGISTER**

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**TERMS AND CONDITIONS**

- Fees – Each fee is inclusive of Documentation, Lunch and refreshments served during the entire seminar.
- Mode of Payment – The delegate has the option to pay the course fee directly or request to send an invoice to his/her company/ sponsor. Credit card and cheque payments are both acceptable.
- Cancellation / Substitution – Request for seminar cancellation must be made in writing & received three (3) weeks prior to the seminar date. A US$ 250.00 processing fee will be charged per delegate for each cancellation. Thereafter, we regret that we are unable to refund any fees due, although in such cases we would be happy to welcome a colleague who would substitute for you.
- Hotel Accommodation – is not included in the course fee. A reduced corporate rate and a limited number of rooms may be available for attendees wishing to stay at the hotel venue. Requests for hotel reservations should be made at least three (3) weeks prior to the commencement of the seminar. All hotel accommodation is strictly subject to availability and terms and conditions imposed by the hotel will apply.
- Attendance Certificate – a certificate of attendance will only be awarded to those delegates who successfully completed/ attended the entire seminar including the awarding of applicable Continuing Professional Education Units/Hours.
- Force Majeure – any circumstances beyond the control of the Company may necessitate postponement, change of seminar venue or substitution of assigned Instructor. The Company reserves the right to exercise this clause and implement such amendments.
- Fair Access / Equal Opportunities – In the provision of its services as a world-class Training Provider, the Company is committed to provide fair access / equal opportunities throughout the delivery of its courses and assessment leading to the completion of training seminars, or 3rd party qualifications/certifications.