

## Petroleum refining

### Why Choose this Training Course?

This Petroleum refining training course is your gateway to mastering the core principles of the refining industry. In a world driven by energy demands, understanding the journey from crude oil to refined products is imperative. Join us to gain a comprehensive insight into the refining process, from distillation to conversion, and product upgrading. Sharpen your knowledge of catalysts, cracking, and treating techniques, while also addressing crucial environmental and economic considerations.

Embark on an engaging learning experience that marries theoretical foundations with practical applications. Gain a profound understanding of distillation principles, conversion mechanisms, and quality enhancement techniques. Discover the synergy between regulatory compliance and energy efficiency. By joining this course, you'll be empowered to contribute effectively to your organization's refining operations. Expect dynamic discussions, illuminating case studies, and a holistic approach to mastering petroleum refining essentials.

### This Fundamentals of Petroleum Refining training course will highlight:

- Characteristics of Crude Oil
- Fundamentals of Petroleum Chemistry and Process Unit
- Product Upgrading and Treating
- Refinery Flow Sheets
- Refinery economics
- Refinery Complexity and Configuration

## What are the Goals?

At the end of Fundamentals of Petroleum Refining this training course, you will learn to:

- Understand the fundamental principles of petroleum refining processes
- Analyze the key factors influencing refining efficiency and product quality
- Apply regulatory knowledge to ensure compliance in refining operations
- Evaluate economic aspects to make informed decisions in the refining industry
- Explore innovative approaches and sustainability concepts in refining practices

## Who is this Training Course for?

This Fundamentals of Petroleum Refining training course is suitable to a wide range of professionals but will greatly benefit:

- Industry Enthusiasts and Learners
- Technical Staff
- Environmental and Regulatory Personnel
- Business and Operations Teams
- Research and Development Professionals
- Suppliers and Service Providers

## Daily Agenda

### Day 1: Introduction to Petroleum Refining

- Significance of refining in the energy industry.
- Overview of refining process from crude oil to products.
- Basics of hydrocarbon chemistry.
- Types of crude oil and their properties.
- Cut point Optimization.
- Crude Assay
- Yields and Properties

### Day 2: Fundamentals of Petroleum Chemistry and Process Unit

- Hydrotreating
- Hydrocracking
- Catalytic Reforming
- Isomerization
- Storage Tanks
- Product Specifications

### Day 3: Product Blending Rules

- Custody Transfer / Measurements
- Using Excel - Yield Optimization
- New Trends in Fuel Production
- Future trends: Sustainability and alternative fuels.
- Blending Exercises

## Day 4: Refinery Flow Sheets

- Refinery Mass Balance
- Hydrocarbon Loss Management
- Product Inventory Control
- Product Quality
- Capacity Control / Constraints
- Availability of Feedstock / Control
- Gasoline Blending and Its Impact on Operation

## Day 5: Refinery economics

- Refinery Complexity
- Refinery Configuration
- Basic Refinery Economics
- Linear Programming applications in refinery
- Product Netback

## Training course Price:

Number of Participants	Course Price
1 Participant	KWD 1600.000
2 Participants	KWD 1500.000
3 Participants	KWD 1400.000
4 Participants	KWD 1300.000
5 Participants	KWD 1200.000
6 and above Participants	KWD 1100.000