informatech


OIL AND GAS | COURSE

# Chemical Process and Refining Technology

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# Course content

## Why Attend

### Why Choose Chemical Process and Refining Technology Training Course?

This Chemical Process and Refining Technology training course delves into the intricacies of chemical process engineering within refinery operations. Participants will explore the transformation of crude oil into valuable end products such as gasoline, diesel, and jet fuel.

By focusing on the technological advancements in distillation, cracking, reforming, and hydroprocessing, the course emphasizes the balance between maximizing yield, ensuring operational safety, and adhering to environmental regulations. The participants will also gain knowledge on how to integrate advanced processes to optimize refinery efficiency while reducing carbon footprints.

### What are the Goals?

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

- Develop a profound understanding of chemical processes in modern refining
- Explore various refining technologies and their role in product enhancement
- Learn to address environmental challenges and safety issues in refinery operations
- Enhance capabilities in applying cutting-edge technologies for yield optimization and process efficiency
- Understand the integration of refining with petrochemical production for added value

### Who is this Training Course for?

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

- Chemical Engineers
- Process Engineers
- Refinery Operators and Technicians
- Environmental Engineers
- Energy Consultants

# Course content

## Why Attend

• Petrochemical Technologists

## Course outline

### Day one: Fundamentals of Refining and Chemical Processes

• Introduction to refinery operations: key units and process flow diagrams

• Core chemical reactions: cracking, hydroprocessing, reforming, and coking

• Fundamental refining technologies: thermal cracking, catalytic cracking, and distillation processes

### Day two: Advanced Distillation and Separation Technologies

• Atmospheric and vacuum distillation: design and operation

• Detailed exploration of separation processes: fractionation, strippers, and absorption

• Introduction to new separation technologies: molecular distillation and membrane separation

### Day three: Catalytic Processes and Hydroprocessing Technologies

• Principles of catalysis and catalyst behavior in refining

• Hydroprocessing fundamentals: hydrotreating and hydrocracking processes

• Catalytic reforming and its effect on enhancing octane number and yield

### Day four: Refinery-Petrochemical Integration and By-Product Management

• Integration between refinery and petrochemical units for maximized productivity

• Handling refinery by-products: sulfur recovery, hydrogen production, and LPG separation

• Economic, logistical, and technological challenges in integrated operations

### Day five: Environmental, Health, and Safety Challenges in Refining

# Course content

## Course outline

- Key environmental regulations and their impact on refining operations
- Process safety management: risk assessment, hazard identification, and incident prevention
- Sustainable refining practices: carbon capture, emission reduction, and waste minimization strategies

# Seminar dates

## Available seminar dates

Live dates and pricing for Chemical Process and Refining Technology generated from the course details page.

| Date | Location | Format | Fee |
|---|---|---|---|
| 18 - 22 May 2026 | Frankfurt - Germany | Classroom | **€3,250.-** |
| 22 - 26 June 2026 | Barcelona - Spain | Classroom | **€3,850.-** |
| 13 - 17 July 2026 | Frankfurt - Germany | Classroom | **€3,250.-** |
| 17 - 21 August 2026 | Rome - Italy | Classroom | **€4,250.-** |
| 21 - 25 September 2026 | Kuala lumpur - Malaysia | Classroom | **€2,250.-** |
| 19 - 23 October 2026 | London - U.K | Classroom | **€4,200.-** |
| 2 - 6 November 2026 | Rome - Italy | Classroom | **€4,250.-** |
| 21 - 25 December 2026 | Munich - Germany | Classroom | **€3,450.-** |

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| **Live online option** | Online delivery is available at €1,850.-. |