

CATALYTIC CRACKING, HYDROCRACKING, AND REFORMING PROCESSES

Start Date:	17/11/2025	End Date:	21/11/2025
Categories:	Engineering & Maintenance	Venues:	Barcelona
Formats:	In Person	Instructors:	

OVERVIEW

This advanced program explores the science and engineering behind catalytic cracking, hydrocracking, and reforming — key processes in petroleum refining. It covers process design, catalyst selection, reaction mechanisms, and troubleshooting for performance improvement.

OBJECTIVES

- Understand the role and principles of catalytic cracking, hydrocracking, and reforming.
- Analyze feedstock properties and reaction mechanisms.
- Select appropriate catalysts and operating conditions.
- Troubleshoot process upsets and optimize product yields.
- Apply safety and environmental considerations in these operations.

COURSE OUTLINE

- Overview of Cracking and Reforming Processes
- Fluid Catalytic Cracking (FCC) Fundamentals
- Hydrocracking Process Design and Catalysts
- Catalytic Reforming Chemistry and Configurations
- Operating Conditions and Performance Metrics
- Troubleshooting and Optimization Techniques
- Safety and Environmental Impacts

TARGET AUDIENCE

Process engineers, refinery technical staff, operations supervisors, and professionals involved in hydrocarbon processing.

METHODOLOGY

Expert instruction, reaction simulations, case reviews, and troubleshooting workshops.

CONCLUSION

Participants will enhance their technical capabilities to improve process efficiency, product yield, and plant safety.

DAILY AGENDA

Day 1: Process Fundamentals

Introduction to cracking and reforming principles.

Day 2: FCC Process Deep Dive

Catalyst behavior, reactor design, and yields.

Day 3: Hydrocracking Operations

Process flows, conditions, and product control.

Day 4: Catalytic Reforming

Reaction chemistry, catalyst life, and upgrades.

Day 5: Optimization & Safety

Troubleshooting, safety integration, and review.

For more information, please contact us:

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