

**Location:** Taaeen/ ADNOC

**Date:** April 2025

**Duration:** 4 Days

**Fee:** English

**Course Title:** Gas Fractionation (Advanced)

### Learning Objectives:

- Analyze advanced gas fractionation processes and their applications.
- Optimize gas separation operations for efficiency and output.
- Troubleshoot operational challenges in gas fractionation.

### Target Audience:

- Process engineers and operators in gas processing plants
- Chemical and mechanical engineers
- Operations and maintenance personnel

### Daily Course Outline:

#### Day 1: Principles of Gas Fractionation

- Fundamentals of hydrocarbon separation
- Overview of gas fractionation processes
- Equipment used in gas fractionation (distillation columns, heat exchangers, compressors)

#### Day 2: Advanced Separation Technologies

- Cryogenic processing and NGL recovery
- Fractionation column design and operation
- Key control parameters for efficient separation

#### Day 3: Process Optimization and Efficiency Enhancement

- Energy integration and cost reduction techniques
- Troubleshooting fractionation system inefficiencies
- Process control strategies for maximizing product yield

#### Day 4: Safety, Environmental, and Regulatory Considerations

- Managing operational risks in gas fractionation
- Compliance with environmental standards and industry regulations
- Case studies on best practices and process troubleshooting

