



## Field Processing & Surface Production Facilities

07 - 18 Oct 2024  
Paris (France)



# Field Processing & Surface Production Facilities

**Ref.:** 15259\_303500 **Date:** 07 - 18 Oct 2024 **Location:** Paris (France) **Fees:** 9500 **Euro**

## Introduction:

This course focuses on a comprehensive understanding of onshore and offshore Oil & Gas field processing techniques, along with knowledge of technology and operating principles of surface production facilities equipment. The course aims to provide an overview and fundamental understanding of the wide range of oilfield production handling and treatment equipment will be presented as well as new technologies.

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## Targeted Groups:

- Chemical, Mechanical engineers and Process Technologists
- Facility and Inspection engineers
- Maintenance or Project Engineers
- Operations and Laboratory Chemists
- Technicians, Support Engineers, and Engineering Trainees
- Consultants and Sales Professionals

## Course Objectives:

At the end of this course the participants will be able to:

- Learn the origins and chemical characteristics of Oil & Gas
- Understand the challenges associated with offshore operations, horizontal drilling and other safety concerns
- Familiarize the participants with various methods and techniques used to explore, drill, produce, treat and transport Oil, Gas and their products
- Introduce the participants to upstream, midstream and downstream operations
- Appreciate Oil & Natural Gas treatment technologies and processes including produced water treatment
- Learn the many processes involved in crude oil refining and how these contribute to refinery complexity and profitability
- Gain valuable knowledge of Gas Sweetening and Physical Solvents Unit Troubleshooting

## Targeted Competencies:

- Exploration activities
- Gathering and separation
- Gas injection
- Hydrates, and Gas Dehydration
- Specifications and process selection
- Downstream Operations
- Oil and Gas pricing

## **Course Content:**

### **Unit 1: FUNDAMENTALS OF RESERVOIR & DRIVE MECHANISM**

- Reservoir types
- exploration techniques.
- Drive mechanisms.
- Enhanced Oil Recovery EOR

### **Unit 2: FUNDAMENTALS OF DRILLING, COMPLETION & WELL PERFORMANCE**

- Drilling principle.
- Offshore drilling.
- Main completion equipment.
- Principle of artificial lift

### **Unit 3: WELL EFFLUENT TRANSPORTATION, FLOW-ASSURANCE & GAS HYDRATES PREVENTION**

- Network design and operation
- Main flow assurance multiphase flow, flow patterns
- Hydrates formation prevention strategies, hydrates inhibition
- Gas condensate field development; deep-offshore production

### **Unit 4: CRUDE OIL PROCESSING**

- Multi Stage Separation MSS.
- Management of foam issues.
- Crude dehydration and desalting.
- Emulsion treatment.
- Crude sweetening H<sub>2</sub>S removal.

### **Unit 5: PRODUCTION & INJECTION WATER TREATMENT**

- Quality requirements for production water.
- Environment related constraints.
- API oil-water separators, plate separators, flotators, hydrocyclones.
- Reasons for water injection.
- Quality requirements and necessary treatments.

### **Unit 6: OFFSHORE DEVELOPMENTS**

- Offshore production structures
- Storage and offloading vessels
- Flow assurance
- preservation techniques and pigging solutions

### **Unit 7: FUNDAMENTALS OF CORROSION**

- Types of corrosion
- Prevention and Monitoring

## **Unit 8: ELECTRICAL SYSTEMS - INSTRUMENTATION & PROCESS CONTROL - SAFETY SYSTEMS**

- Electrical power generation.
- Electrical power distribution network and equipment.
- Field instrumentation; controllers; control loop structures.
- Distributed Control System DCS.
- Safety Instrumented Systems SIS: ESD, HIPS, fire and gas system.

## **Unit 9: METERING & ALLOCATION**

- Metering and production allocation.
- Production accounting & material balance.
- Transactional metering of liquids and gas.
- Multi-phase metering: advantage, principle and fields of application.



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**Registration form on the :  
Field Processing & Surface Production Facilities**

**code:** 15259 **From:** 07 - 18 Oct 2024 **Venue:** Paris (France) **Fees:** 9500 **Euro**

Complete & Mail or fax to Mercury Training Center at the address given below

**Delegate Information**

Full Name (Mr / Ms / Dr / Eng):

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Position:

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Telephone / Mobile:

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Personal E-Mail:

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Official E-Mail:

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**Company Information**

Company Name:

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Address:

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City / Country:

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**Person Responsible for Training and Development**

Full Name (Mr / Ms / Dr / Eng):

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