



Arabian Institute For Training

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# Oil & Gas Platform Supervisory Programme

## INTRODUCTION

- This training course will cover the methods of supervision of operations and the development of an effective process. The principles of distillation, hydraulics, phase separation, and heat transfer, as they apply to process applications, have been well known for quite some time. The recognition of problem and troubleshooting is covered in this course. The aspect of the job that makes it so difficult is that most process problems are initiated by human error – a never-ending source of surprise.
- This training course will provide participants with a good guide for a cost effective supervision and working knowledge of the major processes for Dehydration, Acid Gas Removal (Gas Sweetening), Hydrocarbon Dewpoint Control (HCDP Control), LPG Production, NGL Recovery and Separation (Fractionation).
- Participants will also learn the basic vocabulary unique to the industry and the key physical and chemical properties of oil and natural gas constituents.
- The course will also cover the important considerations of the design and selection of key process equipment including Separators, separators, pumps, communication and automation monitoring systems.
- A lot of attention in this course is given to the SIMOPS onto platform.

### This training seminar will highlight:

- Downstream activities
  - Oil and gas production
  - Description of the ideal supervision with right personnel
  - Monitoring production for a smooth operation
  - Production components including separators, pumps and heaters
  - Unmanned and manned platforms
  - Communications and control of operation
  - Utilities and transportation
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## OBJECTIVES

- This training course is designed to provide participants with an in-depth knowledge of the technology and processes that can be met on production platform. Specific problems associated with operation and trouble shooting, integrity assurance in well head deck and production facilities will be analyzed.

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

- Apply a comprehensive knowledge on the latest techniques for processing and safe production
- Identify the various types of separators, heaters, pumps and distillation process
- Recognize the role & importance of solving processing problems and trouble shooting
- Be familiar with ESD systems and instrumentation
- Gain experience by knowing SCADA , PLC, and DCS
- Be familiar with work permits and supervision of repairs and preventive maintenance
- Understand the VALID DIAGNOSTIC ACTIONS.
- Evaluate the FACTORS AFFECTING PERSONAL PERFORMANCE
- Work in team with consideration to the ENVIRONMENT and SAFETY
- Be familiar with remote supervision of production platform

## TRAINING METHODOLOGY

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures
- 30% Workshops & Work Presentations
- 20% Videos and software
- 20% Case Studies & Practical Exercises

## ORGANISATIONAL IMPACT

- Organizations benefit tremendously when their engineers possess a high degree of data, information and knowledge gained in this seminar. They will be well prepared to make decisions for future action concerning a wise supervision using modern technology and good utilization of trained personnel on production platform.

## PERSONAL IMPACT

- Provide innovations within the company
  - Understand better some complicated production operations necessary to keep and high standers of oil and gas production
  - Recognize the cost effective procedures for platform supervisory
  - To give solutions during the production operations
  - To improve the “decision making task”
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## WHO SHOULD ATTEND?

This training course is primarily designed for:

- Platform Engineers
- Production Supervisors
- Production Foremen
- Production Operators, Field and Control Room Ones
- Production Engineers
- Company Men
- Production Technicians
- Junior Process Engineers
- Facility Engineers
- Facility Foremen
- Maintenance Engineers
- Maintenance Foremen

## Course Outline

### Introduction, Definitions and the Platform Environment

- Downstream Activities
- Defining Sustainable Development
- Oil And Gas Production
- Oil Storage Tanks And Types
- Gas Freeing
- Product Specifications
- Basics For Process Design, Reliability, Operability & Safety
- Piping & Equipment Lay Out
- Valves All Types
- ESD Systems

### Operations and Monitoring

- Blending Tank Mixing
  - Metering
  - Cleaning Of Crude Oil Tanks
  - Surface Facility Operation
  - Dehydration
  - Separators
  - Centrifugal Pumps
  - Positive Displacement Pumps
  - Gas Hydrates
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## Operation, Supervision & Safety

- Distillation
- Flare System & Re-circulation
- Towers and Monitoring
- Utilities
- Transportation Complications
- Safety related to SIMOPS
- SIMOPS
- Process Trouble Shooting
- Problems Solving

## Safety Process

- Valid Diagnostic Actions
- Interpersonal Skills in Limited Spaces (Platforms)
- Factors Affecting Personal Performance
- Environmental Considerations on Dealing with Manned & Unmanned Facilities
- Define the Goals and Skills Of Good Supervision
- SCADA Systems
- HSE Codes And Standards
- Work Permits & Application
- System Integration
- FPSO (Floating Production Storage and Offloading)

## Process Automation & Control

- Process Automation
  - Process Control And Data Acquisition
  - Communications
  - PLC
  - DCS
  - Security
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