



*Training Course:  
CPU – Central Processing Unit*

*31 August - 4 September 2025*

*Cairo (Egypt)*

*Holiday Inn & Suites Cairo Maadi, an IHG Hotel*

## Training Course: CPU □ Central Processing Unit

Training Course code: EN236100 From: 31 August - 4 September 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 4200 □ Euro

### Introduction

This advanced training program, designed by [Global Horizon Training Center](#), equips Production Shift Supervisors in the oil and gas sector with in-depth technical knowledge and operational strategies for managing critical production systems—from production wells to central processing units CPUs and ultimately to storage and shipping facilities. The course focuses on understanding and overseeing the integrated flow of oil and gas through production manifolds, separators, heaters, and desalters, with a clear emphasis on safety, efficiency, and maximizing uptime in high-stakes environments. Supervisors will gain practical insight into the full production lifecycle and how to make real-time decisions to maintain optimal performance.

### Objectives

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

- Understand the complete flow process from oil/gas wells to the central processing unit CPU and beyond.
- Monitor, manage, and troubleshoot components such as manifolds, separators, heaters, and desalters.
- Optimize operations and reduce downtime through proactive shift supervision.
- Enhance collaboration between production teams to ensure smooth transitions and continuity.
- Apply advanced process safety and control measures across production systems.
- Identify and respond to abnormal operating conditions quickly and effectively.

### Course Methodology

- Expert-led sessions with case studies and technical breakdowns
- Simulation-based exercises for process troubleshooting and optimization
- Interactive discussions and shift coordination scenarios
- Daily knowledge checks and review sessions
- Real-life incident analysis to apply lessons learned

## Organizational Impact

- Improved operational efficiency through well-trained supervisors
- Enhanced shift communication and accountability
- Reduction in production losses and process upsets
- Improved safety and compliance with industry standards
- Better alignment with overall production targets and KPIs

## Target Audience

- Production Shift Supervisors
- Field Production Engineers
- Operations Foremen and Lead Operators
- Process and Facilities Engineers
- Control Room Supervisors
- Junior Managers involved in upstream production operations

## Outlines:

### Day 1: Oil & Gas Production Wells - Operational Dynamics

- Fundamentals of oil and gas reservoirs
- Types of production wells and completion strategies
- Overview of artificial lift systems
- Real-time monitoring of well performance
- Troubleshooting declining well productivity
- Shift supervisor's role in coordinating well interventions

#### Day 2: Production Manifolds - Flow Control and Routing

- Structure and purpose of manifold systems
- Routing and control of multi-well production flows
- Monitoring pressure, temperature, and flowrate data
- Leak detection and response measures
- Emergency shut-down scenarios and SOPs
- Hands-on exercises: Manifold simulation and control logic

#### Day 3: Three-Phase Separators, Heaters, and Desalters

- Principles of oil, gas, and water separation
- Process parameters and separation efficiency
- Function and design of indirect and direct heaters
- Desalting: chemical injection and electrostatic methods
- Common operational issues and mitigation techniques
- Alarm management and operator response systems

#### Day 4: Crude Oil Storage and Shipping Systems

- Types of storage tanks and operational procedures
- Tank gauging, sampling, and custody transfer
- Loading systems: pumps, pipelines, and metering
- Vapor recovery and environmental controls
- Storage tank integrity, inspections, and safety
- Preparing for export and marine loading operations

#### Day 5: Integrated CPU Operations and Shift Supervision

- Central Processing Unit: functional overview
- Shift handover best practices and checklist creation
- Process control philosophy and logic diagrams
- Emergency response and incident command structure
- Data analysis and daily production reporting
- Final simulation: end-to-end production system scenario.

## Registration form on the Training Course: CPU □ Central Processing Unit

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

### Easy Ways To Register

Telephone:  
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info@gh4t.com  
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