CONCEPT

Port and Terminal Operations Management: Berth, Yard, Gate and Terminal Performance

13 – 17 December 2026
Riyadh - KAFD district five-star



Port and Terminal Operations Management: Berth, Yard, Gate and Terminal Performance

Ref: 1281_16600 **Date:** 13 – 17 December 2026 **Location:** Riyadh - KAFD district five-star **Fees:** 20000 SAR

Technical depth: Practitioner · **Practical mode:** Inspection walkthrough

Introduction

Ports and terminals compete on how quickly and safely they turn ships, trucks and trains, and every hour a vessel waits at anchor or a container dwells in the yard costs the terminal, its customers and the wider trade chain. Performance is usually lost at the interfaces: berth to yard, yard to gate, terminal to shipping line. This Core Concept course equips terminal and port managers to measure and improve those interfaces against international codes and benchmarks. Through guided walkthroughs of terminal processes, participants produce a Terminal Performance Improvement Plan for their own facility.

Course Objectives

- Assess berth, yard, gate and rail interfaces with the UNCTAD Port Performance Scorecard and terminal KPIs
- Plan berth allocation, crane deployment and vessel stowage using terminal operating system data and BAPLIE messages
- Manage yard stacking, gate appointments and container dwell time to reduce congestion
- Apply ISPS Code, IMDG Code and ILO port safety requirements to daily terminal operations
- Diagnose productivity losses from walkthrough findings and select improvement actions using root cause analysis
- Produce a Terminal Performance Improvement Plan with targets and owners

Target Audience

- Terminal operations managers responsible for vessel, yard and gate performance
- Port and harbour operations managers coordinating marine and landside services
- Berth and vessel planning managers working with shipping lines
- Port facility security, HSE and dangerous goods managers
- Commercial and customer service managers responsible for terminal service levels
- Port authority and concession managers overseeing operator performance

Course Outline

Day 1: Port and Terminal Foundations

- Port Governance Models: Landlord, Tool and Service Port
- Terminal Types: Container, Dry Bulk, Break-Bulk, Ro-Ro and Liquid Bulk
- Terminal Subsystems: Quay, Yard, Gate and Rail Interface
- Container Standards: ISO 668 Dimensions and ISO 6346 Coding
- Current-State Terminal Performance Baseline Using UNCTAD Indicators

Day 2: Codes, Standards and Terminal Systems

- UNCTAD Port Performance Scorecard Indicators
- Terminal Operating System TOS Architecture and Data Flows
- SMDG EDI Messages: BAPLIE, COPRAR and CODECO
- ISPS Code Port Facility Security Plan Requirements
- IMDG Code Amendment 42-24 Dangerous Goods Segregation

Day 3: Quayside, Yard and Gate Operations

- Berth Allocation Planning and Berth Window Agreements
- Quay Crane Split and Gross Crane Productivity Calculation
- Yard Stacking Strategy and Reshuffle Minimisation
- Gate Appointment System and Truck Turnaround Time
- Maritime Single Window and Port Community System Data Exchange

Day 4: Safety, Security and Performance Risk

- ILO Code of Practice on Safety and Health in Ports: Traffic and Lifting Controls
- Verified Gross Mass VGM and Container Weight Risk
- ISO 28000 Security Risk Assessment for Terminal Operations
- Berth Congestion and Vessel Waiting Time Root Cause Analysis
- Just-in-Time Vessel Arrival Coordination with Shipping Lines

Day 5: Terminal Walkthroughs and the Improvement Plan

- Container Terminal Walkthrough: Quay-to-Yard Productivity Losses
- Bulk and General Cargo Terminal Walkthrough: Safety and Dwell Time
- Terminal KPI Dashboard: Berth Occupancy, Crane Moves per Hour and Dwell Time
- Terminal Performance Improvement Plan Drafting
- Operations Review Panel and Plan Defence

Skills You Will Gain

- Vessel Operations Coordination
- Yard Capacity Management
- Terminal Productivity Analysis
- Port Security Management
- Dangerous Goods Handling Oversight
- Port Community Data Exchange
- Terminal Performance Benchmarking

Why Attend This Course

- Return to work with a Terminal Performance Improvement Plan grounded in a structured walkthrough of your own facility
- See where hours are lost between berth, yard and gate and which fixes recover them
- Discuss productivity, safety and security with shipping lines, authorities and hauliers on the basis of shared indicators
- Benchmark practice with port and terminal managers from other countries and cargo types

Conclusion

Terminal performance is decided at the interfaces between ship, quay, yard, gate and the wider port community. This course moves from port governance and terminal subsystems, through the UNCTAD indicators, terminal systems and international codes, to berth, crane, yard and gate planning, and then to safety, security, congestion and vessel arrival risk. The final day applies structured walkthroughs to terminal scenarios and produces a Terminal Performance Improvement Plan that participants take back to their operations team.