

PORT MANAGEMENT MASTERCLASS



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TRAINING CENTER



Introduction

Ports sit at the junction of trade, logistics, and national infrastructure, and their performance shapes the cost of everything that moves. The Port Management Masterclass Course gives port executives, terminal managers, and logistics professionals a comprehensive view of modern port operations. Participants learn how to plan terminal capacity, manage vessel turnaround, handle cargo flows, and develop commercial strategy. Furthermore, the course covers port safety, security, environmental obligations, and digital systems. In addition, it addresses concession agreements and infrastructure investment. As a result, delegates leave able to raise productivity, reduce congestion, and strengthen the port's competitive position.

Port Management Masterclass Course Objectives

- Apply port and terminal management principles to daily operations and long-term planning.
- Manage vessel scheduling, berth allocation, and turnaround time performance.
- Optimise container, bulk, and general cargo handling operations.
- Apply terminal operating systems (TOS) and port community systems (PCS).
- Plan capacity and forecast throughput using demand modelling methods.
- Design port commercial strategies, tariffs, and concession structures.
- Apply port safety, security, and ISPS Code requirements.
- Manage port environmental compliance and sustainability obligations.
- Implement port performance indicators such as berth productivity and dwell time.
- Assess port infrastructure investment and public-private partnership models.

Course Methodology

- Interactive workshops led by port and terminal operations practitioners.

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- Case studies of major ports and terminal productivity turnarounds.
- Group exercises using berth planning and throughput forecasting tools.
- Simulation of a vessel call and terminal coordination scenario.
- Analysis of port performance data and productivity indicators.
- Role-play of concession negotiations and stakeholder meetings.
- Capstone project: presenting a port development and operations plan.

Who Should Take This Course

- Port authority and terminal executives.
- Terminal operations and yard managers.
- Shipping line and logistics managers.
- Port engineers and infrastructure planners.
- Customs, safety, and security officers at ports.
- Consultants and analysts in maritime trade.

Port Management Masterclass Course Outlines

Day 1: Port Systems and Strategic Context

- Role of ports in trade, supply chains, and national economies.
- Port types: landlord, tool, service, and mixed models.
- Governance structures and port authority responsibilities.
- Global shipping trends and vessel size evolution.
- Port competition, hinterland markets, and positioning.
- Stakeholder map: carriers, shippers, authorities, and communities.
- Exercise: analysing a port's competitive position.





Day 2: Terminal Operations and Cargo Handling

- Container terminal layout and yard planning principles.
- Berth allocation and vessel scheduling methods.
- Ship-to-shore and yard crane productivity management.
- Bulk, breakbulk, and general cargo operations.
- Gate operations, truck turnaround, and landside flow.
- Terminal operating systems (TOS) and automation options.
- Workshop: planning a vessel call and berth window.

Day 3: Capacity, Performance, and Digital Systems

- Throughput forecasting and demand modelling.
- Capacity planning, congestion analysis, and bottleneck management.
- Port performance indicators: berth productivity, dwell time, and crane moves per hour.
- Port community systems (PCS) and data integration.
- Digitalisation, IoT, and smart port technologies.
- Process improvement using lean and value stream methods.
- Exercise: building a port performance dashboard.

Day 4: Safety, Security, and Environment

- Port safety management systems and risk assessment.
- ISPS Code requirements and port facility security plans.
- Dangerous goods handling and emergency response planning.
- Environmental obligations: emissions, dredging, and waste management.
- Sustainability initiatives and green port programmes.

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- Occupational health and safety for port workers.
- Case exercise: reviewing a port security plan.

Day 5: Commercial Strategy, Concessions, and Investment

- Tariff structures and port pricing strategies.
- Concession agreements and terminal operator selection.
- Public-private partnership models for port infrastructure.
- Capital investment appraisal for port projects.
- Stakeholder and community engagement.
- Performance contracting and service level agreements.
- Capstone project: presenting a port development plan.

Conclusion

By successfully completing Port Management Masterclass, participants will have acquired practical knowledge of terminal operations, berth and yard planning, port performance measurement, safety and security compliance, and commercial strategy. They will understand how to link operational productivity to competitive positioning and how to plan capacity and investment with evidence. In addition, they will gain confidence in concession and stakeholder negotiations. Gentex Training Center builds this programme around real port practice, so delegates return ready to raise terminal performance and commercial results.

FAQs





Q1 What is the "Port Management Masterclass" course about?

It covers how ports and terminals are managed, from vessel scheduling and cargo handling to capacity planning, safety, security, and commercial strategy. Participants learn terminal operations, performance measurement, and concession structures. The course connects operational productivity to competitive positioning.

Q2 What are the key benefits of the "Port Management Masterclass" course?

It improves terminal productivity, vessel turnaround, and congestion management. Participants gain planning and performance tools, stronger safety and compliance awareness, and commercial and concession knowledge. Ports benefit from faster cargo flow, better infrastructure decisions, and a stronger competitive position.

Q3 What skills will I gain from the "Port Management Masterclass" course?

Participants gain port and terminal operations management, berth and yard planning, port performance measurement and digital systems, and port safety, security, and commercial strategy.



Q4 What tools, methods, or standards are covered in the "Port Management Masterclass" course?

The course covers terminal operating systems (TOS), port community systems (PCS), berth allocation and vessel scheduling methods, throughput forecasting and demand modelling, port performance indicators (berth productivity, dwell time, crane moves per hour), the ISPS Code and port facility security plans, safety management systems, green port programmes, tariff structures, concession agreements, and public-private partnership models.

Q5 How is the "Port Management Masterclass" course applied in real-world practice?

Participants apply it by planning berth windows and yard allocation, tracking productivity indicators, and removing operational bottlenecks. They also manage safety, security, and environmental compliance, design tariff and concession arrangements, and appraise infrastructure investment, improving both terminal throughput and commercial returns.