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COURSE BROCHURE

Loading Master and Marine Terminal Operations Course

29 March – 2 April 2027
Barcelona

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Loading Master and Marine Terminal Operations Course

Ref: 607_22365 **Date:** 29 March – 2 April 2027 **Location:** Barcelona **Fees:** 6200 GBP

Loading Master and Marine Terminal Operations Course is a 1-week training course for terminal operations supervisors and cargo superintendents, who develop a Marine Cargo Transfer Interface Plan to govern ship-to-shore bulk liquid transfers safely. International maritime trade demands rigorous technical coordination between tanker crews and shore personnel to protect assets, personnel and coastal environments. Jupiter Prime Training designed this course for operational leaders responsible for flawless marine cargo execution.

Why Loading Master and Marine Terminal Operations Matters Now

Three primary forces shape terminal cargo operations today: stringent global maritime safety regimes, the growing complexity of parcel chemical and hydrocarbon transfers, and heightened scrutiny over atmospheric emissions and marine loss prevention. Operating safely requires close alignment between tanker crews and terminal staff under the International Safety Guide for Oil Tankers and Terminals ISGOTT 6th Edition, published jointly by the Oil Companies International Marine Forum OCIMF, the International Chamber of Shipping ICS, and the International Association of Ports and Harbors IAPH. Failing to uphold these benchmarks creates catastrophic risks of vapor release, pipeline rupture or structural berth collision, whereas disciplined compliance secures flawless product custody and rapid vessel turnaround under the OCIMF Marine Terminal Operator Competence and Training MTOCT framework.

Who Gains Most from Loading Master and Marine Terminal Operations

- Operations personnel responsible for berth management, manifold connection safety and ship-to-shore communications
- Terminal technicians accountable for monitoring marine loading arms, custody metering skids and vapor recovery systems
- Marine cargo superintendents overseeing pre-transfer safety inspections, cargo calculations and custody documentation
- Safety officers directing hazardous area risk assessments, toxic gas exposure controls and emergency shutdown readiness

A combined terminal operations and marine safety team gains the greatest benefit by attending together, establishing unified operational discipline across the ship-to-shore boundary.

Loading Master and Marine Terminal Operations Capabilities

Participants acquire the practical proficiencies required to supervise tanker berthing interfaces, coordinate transfer systems and reconcile product quantities accurately across commercial and industrial marine facilities.

- Assess tanker mooring arrangements against environmental limits — berth safety and line tension management
- Execute pre-transfer safety conferences using standardized checklists — ship and shore alignment
- Test marine loading arm emergency release systems — spill prevention and hardware integrity
- Calculate static custody transfer quantities and voyage differences — commercial reconciliation and loss control
- Supervise vapor return balancing and gas detection monitors — atmospheric emissions and toxic exposure control
- Coordinate emergency shutdown procedures across distributed control networks — incident mitigation and asset protection

Key Loading Master and Marine Terminal Operations Terms

- Ship/Shore Safety Checklist — an agreed operational protocol verifying safety controls between vessel and terminal before transfer.
- Marine Loading Arm — an articulated mechanical pipe assembly connecting terminal shore pipelines directly to tanker manifold flanges.
- Emergency Release System — an automated mechanism that disconnects loading arms and isolates product lines during severe berth movement.
- Stop Work Authority — the formal mandate empowering any operational member to halt cargo transfer immediately upon identifying unsafe conditions.
- Custody Transfer Measurement — the joint determination of liquid cargo volume, temperature and density to establish bill of lading quantities.
- Vapor Recovery System — terminal process equipment designed to capture and treat volatile hydrocarbon gases displaced during tanker loading.
- Line Management Plan — a structured maintenance and operational strategy ensuring mooring lines maintain adequate safe working loads.

Loading Master and Marine Terminal Operations Day by Day

Day 1: Marine Terminal Regulatory Architecture

- ISGOTT 6th Edition Interface Protocols — Establishing Operational Governance
- OCIMF Marine Terminal Operator Competence and Training — Aligning Duty Allocations
- IMO Instruments Under SOLAS and MARPOL — Mandating Ship and Port Interface Standards
- OCIMF Mooring Equipment Guidelines Fourth Edition — Evaluating Line Management Plans
- Berth Hazard Zone Classification Under ISO 14001:2015 — Controlling Environmental Exposure

Day 2: Ship-to-Shore Interface Preparation

- Pre-Arrival Information Exchange Formats — Verifying Tanker Suitability
- Ship/Shore Safety Checklist Execution — Authorising Transfer Clearance
- Toxic Gas Containment and Exposure Boundaries — Establishing Personnel Protection
- Vapor Recovery System Balancing and Pressure Control — Managing Flammable Atmospheres
- Emergency Stop Work Authority Thresholds — Setting Real-Time Escalation Triggers

Day 3: Marine Loading Arms and Transfer Infrastructure

- Marine Loading Arm Operating Envelopes — Monitoring Tidal and Drift Limits
- Powered Emergency Release Couplings Testing — Validating Primary Isolation Barriers
- ESD-1 and ESD-2 System Architecture — Coordinating DCS Cargo Flow Shutdowns
- Surge Pressure Mitigation in Shore Pipelines — Preventing Water Hammer Ruptures
- Manifold Connection and Electrical Insulation — Mitigating Static Electricity Hazards

Day 4: Custody Transfer Measurement and Loss Control

- Joint Ullage and Temperature Measurement Protocols — Verifying Gross Observed Volume
- Free Water and OBQ ROB Calculations — Establishing In-Tank Product baselines
- ASTM Petroleum Measurement Tables Application — Reconciling Standard Volume Quantities
- Ship and Shore Difference Investigation Checklists — Resolving Measurement Discrepancies
- Bunker Delivery Note Documentation Protocols — Completing Statutory Transfer Records

Day 5: Transfer Plan Execution and Emergency Response

- Simulated Ship-to-Shore Transfer Scenarios — Applying ISGOTT Safety Checklists
- Joint Ship/Shore Safety Conference Drills — Testing Cargo Transfer Rates
- Emergency Loading Arm Disconnect Drills — Executing Coordinated Shutdown Sequences
- Cargo Difference Investigation Exercises — Resolving Disputed Transfer Volumes
- Marine Cargo Transfer Interface Plan Completion — Finalising Operational Control Framework

Applying Loading Master and Marine Terminal Operations After the Course

- Audit the terminal ship-to-shore safety checklist against current ISGOTT benchmarks and update pre-transfer operational verification checklists accordingly.
- Conduct a joint marine loading arm emergency shutdown review with jetty maintenance technicians to verify trip sequences and isolation valve timing.

Loading Master and Marine Terminal Operations Questions FAQ

What is loading master and marine terminal operations and why does it matter now?

Loading master and marine terminal operations govern the technical interface between liquid bulk vessels and shore installations. It matters now because stricter global safety mandates require absolute discipline during hazardous cargo transfers to eliminate spills, fires and cargo losses.

Which roles gain most from loading master and marine terminal operations?

Operational personnel supervising jetty transfers, cargo superintendents managing ship-to-shore custody interfaces, and terminal safety officers coordinating emergency shutdown mechanisms gain the highest value from this course.

How does loading master and marine terminal operations differ from general port management?

While general port management addresses maritime logistics, vessel traffic and commercial estate administration, loading master and marine terminal operations focuses specifically on the technical, safety and fiscal control of high-hazard bulk liquid transfers.

What does the participant bring back from loading master and marine terminal operations?

The participant brings back an operational Marine Cargo Transfer Interface Plan, giving your facility an actionable framework to supervise vessel connections, enforce pre-transfer checklists and resolve custody transfer differences.

Loading Master and Marine Terminal Operations: The Way Forward

The Marine Cargo Transfer Interface Plan provides terminal teams with a standardized operational structure to govern vessel pre-arrival clearance, manifold connection integrity and emergency response. Terminal superintendents and loading masters use it during pre-transfer conferences to align vessel crews with terminal safety limits. Following its initial implementation, operations teams should review pipeline pressure data to refine transfer rates continuously.