

The ILTA logo consists of the letters "ILTA" in a bold, white, sans-serif font, enclosed within a black rectangular border.The text "MAY 22-24" is displayed in a bold, blue, sans-serif font. To the right of the text is a stylized green graphic of a hand holding a star.The text "INTERNATIONAL OPERATING CONFERENCE & TRADE SHOW" is written in a white, sans-serif font on a black background.

Terminals 101

Marriott Marquis Houston Location TBD

Wednesday, May 24, 2023
8:00 a.m. to 5:30 p.m.

Thursday, May 25, 2023
8:00 a.m. to 2:00 p.m.

This course provides attendees with a comprehensive overview of the terminal industry, facility operations, system components, the role of terminals in the supply chain, operational safety, product handling, tank design and maintenance, regulatory requirements and industry standards. In addition, the program will cover facility equipment and describe types of aboveground storage tanks, roof designs and tank components.

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2023 Course Syllabus and Schedule

DAY ONE – May 24, 2023

- 7:30 a.m. – 8:00 a.m. **Breakfast**
- 8:00 a.m. – 8:15 a.m. **Welcome & Introductions**
- 8:15 a.m. – 9:30 a.m. **MODULE 1: Terminal Industry Basics and the Supply Chain**
- A. The Role of Terminals in the Supply Chain
 - B. Products Handled
 - C. Operating Companies
 - D. Terminal Management Responsibilities
 - E. Product Transfers
 - F. Terminal Economics
- 9:30 a.m. – 9:45 a.m. **Morning Break**
- 9:45 a.m. – 11:15 a.m. **MODULE 2: Terminal Assets and Equipment**
- A. Tanks
 - B. Pipelines
 - C. Loading and Unloading Equipment
 - D. Environmental Controls
 - E. Utilities
 - F. Miscellaneous
- 11:15 a.m. – 2:00 p.m. **Lunch** (extra time allowed to visit the Trade Show)
- 2:00 p.m. – 3:00 p.m. **MODULE 3: Safety Considerations for Terminal Operators**
- A. Safety as Culture
 - B. Safety Requirements
 - a. Hazard Communication
 - b. PPE, Fall Protection and Confined Spaces
 - c. Electrical Safety
 - d. Process Safety
 - e. Fire Protection
 - C. ILTA Terminal Safety Recognition Program



3:00 p.m. – 4:20 p.m. **MODULE 4: Security and Transportation Compliance Basics**

- A. Security
 - a. Maritime Transportation Security Act
 - b. Chemical Facility Anti-Terrorism Standards
 - c. Facility Security Plans
 - d. Cybersecurity
 - e. Transportation/Hazardous Materials

4:20 p.m. – 4:30 p.m. **Afternoon Break**

4:30 p.m. – 5:30 p.m. **MODULE 5: Marine Terminals**

- A. Tankers, Barges and Navigational Waterways
- B. Docks, Moorings and Berthing Depths
- C. Product Transfers
- D. Intermodal Connections
- E. Inspection and Maintenance
 - a. Facility Equipment
 - b. Dredging

5:30 p.m. **End of Day One**

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DAY TWO – May 25, 2023

7:30 a.m. – 8:00 a.m. **Breakfast**

8:00 a.m. – 8:30 a.m. **MODULE 6: Tank Failures and Spills**

- A. Case Studies
- B. Prevention
- C. Response

8:30 a.m. – 10:30 a.m. **MODULE 7: Tank Construction, Maintenance and Repair**

- A. Tank Maintenance Concepts
 - a. Purpose
 - Safety, Environmental
 - Risk Mitigation
 - Planned Outages
 - Asset Longevity
 - b. Drivers
 - Standards
 - Regulations
 - Customer/Design Specifications
 - Change of Service
 - Unplanned Maintenance
 - c. Corrosion
 - Prevention
 - Leak Detection
 - Secondary Containment
- B. Typical Maintenance Cycle Steps
 - a. Preplanning, Budgeting and OOS Preparation
 - b. Safe Entry, Permits, Safety Best Practices
 - c. Cleaning
 - d. Inspection
 - e. Develop Scope, Bid and Award Work
 - f. Execute Repairs
 - g. Post Inspection and Calibration
 - h. Painting, Coatings and Linings
 - i. Recommissioning
 - j. In-Service Inspections
- C. Project and Commercial Management Strategies
 - a. Lump Sum Bids
 - b. T&M Agreements
 - c. Unit Rate Agreements
- D. Keys to Successful Projects
 - a. Clearly Defined Objectives and Scope of Work
 - b. Good Planning, Scheduling and Coordination

10:30 a.m. – 10:45 a.m. **Morning Break**

10:45 a.m. – 11:15 a.m. **MODULE 8: Introduction to Regulations & Standards**

- A. Federal Agencies
 - a. Department of Homeland Security
 - Cybersecurity and Infrastructure Security Agency
 - Federal Emergency Management Agency
 - Transportation Security Administration
 - U.S. Coast Guard
 - b. Department of Transportation
 - Federal Railroad Administration
 - Pipeline and Hazardous Material Safety Administration
 - c. Environmental Protection Agency
 - Clean Air Act
 - Clean Water Act
 - Comprehensive Environmental Response, Compensation and Liability Act
 - Resource Conservation and Recovery Act
 - d. Food and Drug Administration (FDA)
 - Food Safety Modernization Act
- B. State and Local Requirements
- C. Industry Standards
 - a. API
 - b. NFPA/IFC
 - c. ISO
 - d. ACC/Responsible Care

11:15 a.m. – 12:00 p.m. **MODULE 9: Environmental Compliance Basics**

- A. Air
 - a. Proper Planning
 - Emission Inventory
 - Timelines
 - Permit Types
 - Major Source (Title V)
 - Minor Source/Synthetic Minor
 - b. Regulations/Subparts
 - NSPS
 - NESHAPs
 - Subpart Kb
 - GD-GACT
 - Subpart XX
 - c. Reporting
 - Title V Compliance and Exemptions
 - Emissions Inventory
 - NESHAPs/NSPS

Continued on the next page.

- B. Water
 - a. Construction
 - b. Individual NPDES Permits
 - c. General NPDES Permits
 - d. Pretreatment Permits
 - e. Reporting (DMRs)
 - f. Storm-water Pollution Prevention Plans (NPDES Compliance)
- C. EPCRA Reporting
 - a. Tier 2 Reporting
 - b. Toxic Release Inventory Reporting
- D. Waste
 - a. Characterizing Waste (Solid/Hazardous)
 - b. Waste/Generator Status
 - VSQG
 - SQG
 - LQG
 - Universal Waste
 - c. Reporting – Annual Report
- E. Spill Prevention, Control and Countermeasure (SPCC)
 - a. Basics
 - b. Piping Outside Bulk Secondary Containment Areas
 - c. Loading Areas v. Loading Racks
 - d. Integrity Testing Requirements and Standards
- F. Facility Response Plans
 - a. Inland Facilities (EPA)
 - b. Waterway Facilities (USCG)

12:00 p.m. – 12:45 p.m. **Lunch**

12:45 p.m. – 1:45 p.m. **MODULE 10: Operations and Product Handling**

- A. Products
 - a. Product Types
 - b. Product Characteristics
- B. Customer Inquiry
 - a. Inquiry Process
 - b. Handling Equipment
- C. Product Transfers
 - a. Modes: Loading and Unloading
 - b. Grounding and Bonding
 - c. Traffic and Scheduling
 - d. Line Clearing/Pigging
 - e. Tank Overfill Prevention
- D. Inventory
 - a. Inventory Control
 - b. Gauging
 - c. Custody Transfer
- E. Product Quality

1:45 p.m. – 2:00 p.m. **Open Discussion, Attendee Survey and Closing Remarks**

2:00 p.m. **End of Class**



Continuing Education Credits

Many national and state professional licensing boards will provide continuing education units (CEUs) to individuals who present a copy of the course syllabus along with an ILTA Certificate of Attendance. Certificates will be emailed to qualified attendees in June 2023.

Attendee Qualifications: Attendees must attend the entire course, complete the sign-in sheet which will be distributed by the course facilitator, and submit an on-site questionnaire which will be distributed prior to the end of class.

Estimated CEUs: 10 hours

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