Training Course on Loading Master for Oil, LNG, Gas and Petrochemical Terminals

Professional Development Training Course Outline

Category	Oil and Gas	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Training Course on Loading Master for Oil, LNG, Gas and Petrochemical Terminals is meticulously designed to equip professionals with the critical knowledge and skills required for the safe and efficient transfer of hydrocarbons and chemicals at oil, LNG, gas, and petrochemical terminals. The program emphasizes best practices in **cargo handling**, **risk management**, and adherence to stringent **safety regulations**. Participants will gain a thorough understanding of terminal operations, emergency response protocols, and the latest industry standards, enabling them to confidently manage complex loading and unloading processes. This intensive training directly addresses the growing demand for highly competent personnel capable of ensuring operational integrity and minimizing potential hazards within these critical energy infrastructure facilities.

The curriculum integrates theoretical knowledge with practical application through real-world **case studies** and interactive exercises. By focusing on key areas such as **custody transfer**, **vapour recovery systems**, and **emergency shutdown procedures**, this course empowers Loading Masters to optimize terminal efficiency while maintaining the highest levels of **environmental protection** and personnel safety. Successful completion of this program will significantly enhance individual capabilities and contribute to improved overall terminal performance and regulatory compliance.

Programme Curriculum

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5 days

Course Objectives

Upon completion of this training course, participants will be able to:

1. Apply best practices in **cargo transfer operations** for various hydrocarbon and chemical products.
2. Understand and implement relevant **international maritime regulations** and terminal-specific procedures.
3. Conduct thorough **pre-loading inspections** of vessels and terminal equipment.
4. Manage and mitigate risks associated with **hazardous materials handling**.
5. Perform accurate **custody transfer calculations** and documentation.
6. Operate and troubleshoot **loading and unloading systems** effectively.
7. Implement and maintain **vapour recovery and emission control systems**.
8. Respond effectively to **emergency situations** and implement safety protocols.
9. Understand the principles of **terminal automation and control systems**.
10. Ensure compliance with **environmental regulations** and best practices.
11. Communicate effectively with vessel crews and terminal personnel regarding **transfer plans**.
12. Apply principles of **human factors** in safe loading and unloading operations.
13. Utilize **digital logging systems** and maintain accurate operational records.

Organizational Benefits

- Reduced incidents and accidents due to improved knowledge and adherence to safety procedures.
- Optimized loading and unloading processes leading to faster turnaround times and reduced operational costs.
- Ensured adherence to international and local regulations, minimizing the risk of penalties.
- Proper handling and management of hydrocarbons and chemicals minimize spills and emissions.
- Demonstrating a commitment to safety and operational excellence enhances the company's image.
- Prevention of costly accidents, spills, and operational delays.
- Consistent application of best practices across all loading operations.
- Empowered personnel capable of handling complex situations effectively.

Target Audience

1. Trainee Loading Masters.
2. Assistant Loading Masters
3. Terminal Operators
4. Supervisors and Managers.
5. Marine Pilots and Mooring Masters
6. HSE (Health, Safety, and Environment) Personnel.
7. Cargo Surveyors
8. Port Authority Officials

Course Outline

Module 1: Introduction to Terminal Operations and Regulations

- Overview of oil, LNG, gas, and petrochemical terminal types and layouts.
- International and local regulations governing terminal operations (e.g., SOLAS, MARPOL, ISGOTT).
- Roles and responsibilities of key personnel in terminal operations.
- Understanding terminal safety management systems (SMS).
- **Case Study:** Analysis of a major incident highlighting the importance of regulatory compliance.

Module 2: Properties of Hydrocarbons and Chemicals

- Physical and chemical properties of different cargo types (crude oil, refined products, LNG, LPG, chemicals).
- Understanding flammability, toxicity, and reactivity hazards.
- Safe handling and storage requirements for various products.
- Compatibility of different cargoes and potential hazards of commingling.
- **Case Study:** Examination of an incident caused by incompatible cargo mixing.

Module 3: Cargo Transfer Systems and Equipment

- Types of loading and unloading arms and their operation.
- Pipeline systems, valves, and flow control mechanisms.
- Pumping systems and their characteristics.
- Metering and measurement systems for custody transfer.
- **Case Study:** Troubleshooting common issues with loading arm operations.

Module 4: Pre-Loading Planning and Vessel Interface

- Pre-arrival information exchange and compatibility checks.
- Development of safe loading and unloading plans.
- Pre-loading inspections of vessel and terminal equipment.
- Communication protocols between vessel and shore personnel.
- **Case Study:** Developing a comprehensive pre-loading plan for a complex cargo operation.

Module 5: Safe Loading and Unloading Procedures

- Step-by-step procedures for loading and unloading different cargo types.
- Monitoring of critical parameters (flow rate, pressure, temperature).
- Procedures for handling leaks, spills, and other operational deviations.
- Use of personal protective equipment (PPE) and safety devices.
- **Case Study:** Analyzing the causes and consequences of a loading spill incident.

Module 6: Custody Transfer and Documentation

- Principles of accurate measurement and calculation in custody transfer.
- Understanding different methods of volume and mass determination.
- Documentation requirements for cargo transfer (bills of lading, ullage reports).
- Sampling procedures and quality control.
- **Case Study:** Reviewing a dispute arising from discrepancies in custody transfer measurements.

Module 7: Emergency Response and Safety Systems

- Identification of potential emergency scenarios in terminal operations.
- Emergency shutdown (ESD) systems and their testing.
- Firefighting and spill response procedures.
- Man overboard procedures and rescue operations.
- **Case Study:** Evaluating the effectiveness of an emergency response during a terminal fire.

Module 8: Environmental Protection and Vapour Management

- Environmental regulations and best practices for terminal operations.
- Understanding and operating vapour recovery and emission control systems.
- Procedures for handling ballast water and tank cleaning.
- Waste management and disposal practices in terminals.
- **Case Study:** Implementing a new vapour recovery system and assessing its environmental impact.

Training Methodology

This course will employ a blended learning approach, incorporating:

- **Interactive Lectures:** Engaging presentations covering theoretical concepts and industry best practices.
- **Group Discussions:** Facilitated sessions for sharing experiences and problem-solving.
- **Practical Exercises:** Hands-on simulations and activities to reinforce learning.
- **Case Study Analysis:** In-depth examination of real-world incidents and scenarios.
- **Video Presentations:** Visual aids to demonstrate operational procedures and safety protocols.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org **or call** *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com