

Marine Operations Specialist: Tug, Boat & Marine Hazards Control



MSE150

COURSE TITLE

Marine Operations Specialist: Tug, Boat & Marine Hazards Control

COURSE DATE/ VENUE

16TH-20TH Jun 2025

Amsterdam

COURSE REFERENCE

MSE150

COURSE DURATION

05 Days

DISCIPLINE

Marine & Shipping Engineering

COURSE INTRODUCTION

This course is designed for professionals in the maritime industry who are looking to enhance their expertise in the safe and efficient operation of tugboats, boats, and marine hazard control. It provides a comprehensive understanding of the principles and best practices in marine operations, including tugging, boat handling, and managing marine hazards in challenging environments.

COURSE OBJECTIVE

Upon successful completion of this course, the delegates will be able to:

- ☐ **Understand the Fundamentals of Marine Operations:**
- ☐ **Master Tugboat Operations and Boat Handling:**
- ☐ **Identify and Control Marine Hazards:**
- ☐ **Ensure Compliance with Safety Standards and Regulations:**
- ☐ **Implement Effective Marine Environmental Control Measures:**
- ☐ **Coordinate and Communicate Effectively in Marine Operations:**
- ☐ **Prepare for Advanced Marine Operations in Challenging Conditions:**
- ☐ **Stay Current with Industry Trends and Innovations:**

COURSE AUDIENCE

- **Marine Operators and Tugboat Crew:** Individuals operating tugboats and other marine vessels, including captains, engineers, and deckhands, seeking to improve their handling techniques and operational efficiency.
- **Port Authorities and Harbor Pilots:** Professionals involved in port operations, harbor management, and vessel coordination who need to understand tug and boat maneuvering techniques and safety protocols.
- **Marine Safety Officers:** Those responsible for ensuring the safety of vessels and personnel in maritime operations, including risk assessment and hazard control.
- **Marine Environmental Managers:** Professionals working in environmental protection and marine pollution control who need to understand the impact of marine operations and how to manage hazards effectively.

COURSE CONTENT

Day 1: Introduction to Marine Operations and Safety

- **Overview of Marine Operations**
 - Introduction to marine transport and offshore operations
 - Key roles of tugboats, boats, and marine vessels in the maritime industry
 - Types of vessels and their functions: tugboats, supply boats, and auxiliary vessels
- **Safety in Marine Operations**
 - International Maritime Organization (IMO) regulations and standards
 - Personal Protective Equipment (PPE) and its role in marine safety
 - Risk assessment and hazard identification in marine environments
 - Maritime safety protocols and emergency procedures

Day 2: Tugboat Operations and Boat Handling Techniques

- **Principles of Tugboat Operations**

- Role and importance of tugboats in port operations, towing, and escorting vessels
 - Types of tugboats: harbor tugs, ocean-going tugs, and offshore tugboats
 - Tugboat propulsion systems and maneuvering techniques
 - **Boat Handling and Navigation**
 - Basic navigation principles for boats and tugboats
 - Turning, stopping, and maneuvering under different conditions (wind, current, etc.)
 - Precision handling in tight spaces: docking, undocking, and towing
 - **Operational Coordination**
 - Communication and teamwork between tugboats, boats, and other vessels
 - Working with pilots, crew, and harbor authorities during vessel operations
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Day 3: Marine Hazards and Risk Control

- **Understanding Marine Hazards**
 - Types of marine hazards: weather, navigation, mechanical failure, and environmental factors
 - Hazardous conditions: storms, heavy winds, strong currents, and ice
 - Collision risks, grounding, and other operational hazards
 - **Risk Mitigation and Control Techniques**
 - Pre-operation hazard assessments and planning
 - Techniques for avoiding and managing collision risks, grounding, and other marine incidents
 - The role of tugboats and support vessels in hazard control
 - **Emergency Response in Marine Operations**
 - Crisis management and emergency protocols in marine operations
 - Spill response and contamination control
 - Procedures for towing and rescue operations during emergencies
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Day 4: Environmental Considerations and Legal Aspects

- **Environmental Protection in Marine Operations**
 - Marine pollution control regulations (MARPOL)
 - Preventing oil spills, waste management, and contamination control
 - Biodiversity protection and the role of marine operations in preserving the ecosystem
 - **Legal and Regulatory Compliance**
 - Understanding maritime laws and conventions: SOLAS, STCW, and ISM Code
 - Vessel registration, licensing, and compliance with international standards
 - Legal implications of environmental violations and safety breaches
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Day 5: Advanced Marine Operations and Future Trends

- **Advanced Tug and Boat Handling in Challenging Environments**
 - Handling tugboats in offshore environments, icebreaking, and towage of large vessels
 - Safety protocols in high-risk operations (e.g., oil rigs, large container ships)
 - **Future Trends in Marine Operations**
 - Advances in marine technology: automation, remote-operated vessels, and smart navigation
 - Innovations in tugboat and boat design for enhanced safety and efficiency
 - Sustainability and green technologies in marine operations
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COURSE CERTIFICATE

TRAINIT ACADEMY will award an internationally recognized certificate(s) for each delegate on completion of training.

COURSE FEES

£5,500 per Delegate. This rate includes participant's manual, Hand-Outs, lunch, coffee/tea on arrival, morning & afternoon of each day.

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions