HANDLING, MANEUVERING AND COMMANDING OF TUGS, BOATS & CRAFT INCLUDE TOWAGE OPERATIONS, SURVEILLANCE, SEARCH & RESCUE



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Introduction

Tug and craft operations decide the outcome of every port movement. A pilot boarding, a berthing in a cross-current, a tow of a disabled vessel, or a search and rescue launch all depend on a master who reads wind, tide, and load correctly and commands a crew with precision. This Handling, Maneuvering and Commanding of Tugs, Boats & Craft Training Course gives masters, officers, and marine crews a structured method for these operations. Participants learn hull and propulsion behaviour, manoeuvring in confined water, towage planning and connection, surveillance patrol work, and search and rescue coordination under SOLAS and COLREG.

Handling, Maneuvering and Commanding of Tugs, Boats & Craft Course Objectives

- Apply COLREG Rules to collision avoidance, lights, shapes, and sound signals.
- Read hull form, propeller, and rudder behaviour in loaded and light conditions.
- Manoeuvre in confined water, strong current, and adverse weather.
- Execute approaching, berthing, and unberthing alongside and at anchor.
- Plan towage operations, including towline selection, bollard pull, and safety zones.
- Apply tug forces and indirect towing methods for ship assistance.
- Command and coordinate crew during critical and emergency phases.
- Conduct man-overboard, fire, abandon-ship, and rescue drills.
- Plan and execute surveillance patrols and search and rescue patterns.
- Apply SOLAS, SAR conventions, and port authority requirements to craft operations.

Course Methodology

- Facilitated sessions built on port movement records, towage plans, and incident reports.

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- Manoeuvring and towage exercises using bridge simulators where available.
- Case workshops on berthing failures, towline partings, and rescue operations.
- Drills and practical evolutions for crew command and emergency response.
- Group exercise on a risk assessment and safe operating procedure for a tug task.

Who Should Take This Course

- Tug masters, mates, and marine officers.
- Craft and patrol boat coxswains and commanders.
- Port marine operations and pilotage staff.
- Towage and marine service crew members.
- Search and rescue and coastal patrol personnel.
- Marine safety and port authority inspectors.

Handling, Maneuvering and Commanding of Tugs, Boats & Craft Course Outlines

Day 1: Regulations, Seamanship, and Vessel Behaviour

- COLREG rules: steering, sailing, overtaking, and crossing situations.
- Lights, shapes, and sound signals in restricted visibility.
- Hull form, displacement, and stability in loaded and light condition.
- Propeller effects, transverse thrust, and rudder response.
- Wind, current, shallow water, and squat effects.
- Anchoring, mooring, and line handling practice.
- Bridge and deck watchkeeping discipline for small craft.

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Day 2: Maneuvering in Confined Water

- Approach planning with tide, wind, and current assessment.
- Turning short round and pivot-point judgement.
- Berthing alongside, stern-to, and at buoys.
- Unberthing under load and alongside tidal and passing traffic.
- Holding position and drift control during standby.
- Interaction with banks, passing ships, and own wash.
- Emergency manoeuvres: crash stop and loss of power response.

Day 3: Towage Operations

- Towage planning: route, weather window, and risk assessment.
- Bollard pull, towline selection, and safe working load.
- Rigging for alongside, pushing, and pulling modes.
- Towline connection, tension monitoring, and preventing girting.
- Towing a disabled vessel, barge, or floating unit.
- Ship assist: indirect and dynamic methods with tug forces.
- Emergency tow release and contingency actions.

Day 4: Command, Crew Coordination, and Emergencies

- Bridge resource management on small craft with tight crews.
- Briefings, orders, and closed-loop communication.
- Crew roles in berthing, towing, and standby operations.
- Man-overboard procedure and recovery practice.
- Fire fighting, flooding, and abandon-ship response.

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- Rescue boat launch and recovery operations.
- Incident reporting, investigation, and lessons learned.

Day 5: Surveillance, Search and Rescue

- Patrol planning, reporting, and evidence handling.
- Search patterns: expanding square, sector, and parallel sweep.
- SAR coordination with shore authorities and on-scene commander.
- Recognition, approach, and recovery of persons in the water.
- First aid, hypothermia, and casualty transfer.
- Survival craft and rescue equipment checks.
- Debrief, documentation, and post-operation review.

Conclusion

By successfully completing the Handling, Maneuvering and Commanding of Tugs, Boats & Craft Training Course, participants will have acquired a thorough working knowledge of manoeuvring in confined water and current, towage planning and execution with correct towline and bollard pull practice, crew command and emergency response, and surveillance and search and rescue procedures under SOLAS and COLREG. They will leave able to plan and command tug and craft tasks with less risk and clearer judgement. Gentex Training Center delivers this programme with marine practitioners who command these operations daily.

FAQs for the Handling, Maneuvering and Commanding of Tugs, Boats & Craft course

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Q1 What is the "Handling, Maneuvering and Commanding of Tugs, Boats & Craft" course about?

It is a five-day programme on commanding and manoeuvring tugs, boats, and craft in port and coastal operations. It covers COLREG application, vessel behaviour, confined water manoeuvring, towage operations, crew command and emergency response, and surveillance and search and rescue.

Q2 What are the key benefits of the "Handling, Maneuvering and Commanding of Tugs, Boats & Craft" course?

Participants command movements with better judgement on tide, current, and load, plan towage with correct bollard pull and towline practice, and reduce the risk of berthing and towing incidents. They also respond faster and more credibly in man-overboard and rescue situations.

Q3 What skills will I gain from the "Handling, Maneuvering and Commanding of Tugs, Boats & Craft" course?

You will gain confined water manoeuvring and vessel handling, towage planning and execution, crew command and emergency response management, and surveillance, search and rescue, and marine regulations application.

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Q4 What tools, methods, or standards are covered in the "Handling, Maneuvering and Commanding of Tugs, Boats & Craft" course?

The course works with COLREG rules on steering, sailing, overtaking and crossing, lights, shapes and sound signals, hull form and stability assessment, propeller effect and transverse thrust analysis, squat and shallow water considerations, anchoring and mooring practice, crash stop and loss of power response, bollard pull calculation, towline selection and safe working load, alongside, pushing and pulling rigging configurations, girting prevention, indirect and dynamic towing methods with tug forces, bridge resource management, closed-loop communication, man-overboard procedures, SAR search patterns including expanding square, sector and parallel sweep, SOLAS and SAR convention requirements, and port authority craft operating procedures.

Q5 How is the "Handling, Maneuvering and Commanding of Tugs, Boats & Craft" course applied in real-world practice?

Teams apply it when assisting a ship to berth, towing a barge or disabled vessel, holding standby during a port movement, launching a rescue boat for a man overboard, running a coastal surveillance patrol, and debriefing a towage or rescue operation.