

“BRIDGE TEAMWORK & SHIP HANDLING”

5-DAY TRAINING COURSE

- **OVERALL AIM**

It is a practical and theoretical Training Course, aimed at helping the trainees gain experience in handling ships under various conditions, and learning how to more effectively contribute to the bridge team during ship maneuvering.

The Training Course has been designed according to the IMO Model Course 1.22 “*Ship Simulator and Bridge Teamwork*”. The exercises and demonstrations that are conducted on ship handling simulators constitute the most important and extensive part of the course.



- **LEARNING OBJECTIVES**

The Trainees, on completing the course, will be able to:

- understand the effect of wind, surface currents, shallow waters, banks, narrow channels in different loading conditions to the behavior of the ship,
- understand the sound and efficient bridge procedures and bridge teamwork during watch keeping and ship handling,
- fully understand the meaning of pivot point, squat and Bernoulli effect, and
- effectively undertake to perform approach, anchoring and berthing operations.

- **FACILITIES**

The Training Course will take place at the ATHINA Maritime Learning and Development Center's K-Sim Full-Mission Bridge – Ship Handling Simulator (Class A-NAV) and in two additional Class C NAV Bridge Simulators. The Full-Mission Bridge Simulator is a 270° horizontal view, mock – up of a modern bridge equipped with all mandatory instruments for navigation capable of simulating a total shipboard bridge operation situation, including the capability for advanced maneuvering in restricted waters, and a teaching environment required for all applicable STCW A-II competences and all navigation-specific IMO Model Courses.



**Bridge Teamwork
&
Ship Handling**



- DAILY SCHEDULE**

DAY 1	09:30 – 09:45	Introduction, Learning Objectives
	09:45 – 11:00	Conduct of an Effective Bridge Watch (Watch keeping in different conditions and areas, position fixing methods other than GPS or other GNSS Receiver)
	11:00 – 11:20	Coffee Break
	11:20 – 13:00	Theory of Standard Maneuvers <ul style="list-style-type: none"> • Deep and Shallow Water Turn, • Crash Astern, • Full Speed and Slow Speed Turn, • Shallow Water Effect - Squat
	13:00 – 13:40	Lunch Break
	13:40 – 14:40	Familiarization with the Bridge Simulators
	14:40 – 15:00	Simulation Exercises <ul style="list-style-type: none"> • Deep Water Full Speed Turning Circle • Shallow Water Full Speed Turning Circle • Deep Water Slow Speed Turning Circle • Crash Astern
	15:00 – 15:20	Coffee Break
	15:20 – 16:15	Simulation Exercise (continued)
	16:15 – 16:30	Debriefing - Closing



DAY 2	09:30 – 09:45	Recap – Summary of 1 st Day Activities/Lessons Learned
	09:45 – 11:00	<p style="text-align: center;">Simulation Exercises</p> <ul style="list-style-type: none"> • Basic Maneuvering Exercises • Zig Zag with a Williamson Turn
	11:00 – 11:20	Coffee Break
	11:20 – 12:20	Wind and Current Effect – Lecture
	12:20 - 13:00	<p style="text-align: center;">Simulation Exercises</p> <ul style="list-style-type: none"> • Port Said Exit - Wind and Current Effect
	13:00 – 13:40	Lunch Break
	13:40 – 14.30	Interaction and Bank Effect – Lecture
	14:30 – 14:50	Coffee Break
	14:50 – 16:00	<p style="text-align: center;">Simulation Exercises</p> <ul style="list-style-type: none"> • Interaction and Bank Effect taking place in the Houston Channel based on two scenarios (opposite sailing and overtaking exercise).
	16:00 – 16:20	Debriefing – Closing



DAY 3	09:30 – 09:45	Recap – Summary of 2 nd Day Activities/Lessons Learned
	09:45 – 11:00	<ul style="list-style-type: none"> • SBM Mooring (Lecture) • Anchoring Procedures (Lecture)
	11:00 – 11:20	Coffee Break
	11:20 - 12:45	Simulation Exercises <ul style="list-style-type: none"> • Anchoring – Heaving Up • Vessel sailing at Singapore Straits proceeding to Tanjun Pelepas anchorage for orders • Heaving up Anchor in a densely populated anchorage
	12:45 – 13:00	Debriefing
	13:00 – 13:45	Lunch Break
	13:45 – 15:00	Principles of Bridge Resource Management <ul style="list-style-type: none"> • Cultural Awareness • Attitude • Decision Making • Crisis Management • Human Error Management • Workload and Stress Planning Learning from Incidents – LFI Case
	15:00 – 15:20	Coffee Break
	15:20 – 16:00	Principles of Bridge Resource Management (continued)
	16:00 – 16:15	De-briefing - Closing



DAY 4	09:30 – 09:45	Recap – Summary of 3 rd Day Activities/Lessons Learned
	09:45 – 11:00	Simulation Exercise on Bridge Workload Management <ul style="list-style-type: none"> • English Channel Transit under Poor Visibility
	11:00 – 11:20	Coffee Break
	11:20 - 12:45	Simulation Exercises <ul style="list-style-type: none"> • Voyage Planning and Approaching to Berth • SBM Mooring Algeciras
	12:45 – 13:00	De-briefing
	13:00 – 13:45	Lunch Break
	13:45 – 15:00	Ship to Ship Transfer Operation – General Principles (Lecture)
	15:00 – 15:20	Coffee Break
	15:20 – 16:00	Simulation Exercise <ul style="list-style-type: none"> • Ship To Ship (STS) Transfer Operation in underway conditions •
	16:00 – 16:15	De-briefing



DAY 5	09:30 – 09:45	Recap – Summary of 4 th Day Activities/Lessons Learned
	09:45 – 10:30	Ship to Ship Transfer Operations (Lecture) Adverse Weather Aborting Considerations, manoeuvring away from the mother (STBL) vessel
	10:30 – 10:50	Coffee Break
	10:50 – 11:30	Simulation Exercise <ul style="list-style-type: none"> • Decision making: When to abort a STS Transfer Operation and proceeding to emergency cast off.
	11:30 – 12:00	De-briefing
	12:00 – 12:20	Navigation with Paper Charts (Lecture)
	12:20 – 13:20	Simulation Exercise <ul style="list-style-type: none"> • Approach to Tangier Med – Use of Paper Charts
	13:20 – 14:00	Lunch Break
	14:00 – 14:20	Night Time Approach to Singapore, background lights and their effect on safety and Bridge Manning (Lecture)
	14:20 – 15:00	Simulation Exercise <ul style="list-style-type: none"> - Target Identification and Collision Avoidance. • Singapore night time approach exercise. • Anchoring in low visibility
	15:00 – 15:20	Coffee Break
	15:20 – 15:45	Simulation Exercise (continued)
	15:45 – 16:10	De-briefing
	16:10 – 16:40	Written Test
	16:40 – 17:00	Discussion – Closing – Assessment of Seminar

