

COURSE OVERVIEW OE0209
Utilization of all Modern Navigation Aids, Marine
Publication & Equipment

Course Title

Utilization of all Modern Navigation Aids, Marine Publication & Equipment

Course Date/Venue

Session 1: August 11-15, 2024/ Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
 Session 2: October 27-31, 2024/ Horus Meeting Room, Holiday Inn & Suites Maadi, Cairo, Egypt



Course Reference

OE0209

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to equip the participants with the fundamental knowledge and skills required to maintain a safe navigational watch, use electronic navigational aids to determine vessel position and use the equipment for safety of navigation in anti-collision modes.



Course participants will acquire sufficient knowledge on the basic principles of the most commonly used electronic navigational aids and to select the best suitable navigational system on board in a given situation and effectively use the instruments. They will also be able to handle the instruments properly and apply correctly the information obtained to fix the vessel's position.



The course covers the basic operation of various navigation instruments, radio direction finders, echo-sounders and speed measurement, speed logs, radar navigation, basic radar plotting, automatic radar plotting aids (ARPA), electronic chart display and information systems (ECDIS), automatic identification systems (AIS) and modern navigation systems to assist command decision-making and the application of effective bridge resource management principles and procedures.

By the end of the course, attendee shall be aware of the latest model/version of the outlined navigation instruments/equipment and understand each system including system theory and the trade brands, operating procedures, alarms, errors and malfunctions.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply basic techniques and procedures on the operation of navigation aids that includes RADAR, GPS, ECHO SOUNDER, DOPPLER, ECDIS & AIS
- Employ proper echo sounding technique, system configuration and system menu
- Discuss GPS and how it works, limitations, datum and projections
- Explain radar, ARPA, radar display and marine radar
- Illustrate radar performance, radar plotting and the use of radar in navigation
- Identify the features, display control and operations of ARPA
- Apply collision assessments, target trails, anchor watch and trial maneuver
- Review plotting principal ARPA systems as well as set-up and maintain track systems displays
- Analyze the risk of over-reliance on ARPA and identify the standard ARPA symbols application of COLREG
- Describe automatic identification system (AIS), global maritime distress and safety system (GMDSS) A1-A2 equipment, vessel data record (VDR), speed and distance log/Doppler and ship security alert system (SSAS)

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend


This course provides an overview of all significant aspect and considerations of operation of navigation aids for ship engineers, skippers, port controllers, ship controllers, vessel controller’s navigators, marine radar operators, operations and maintenance staff.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology’s courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant’s involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant’s CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council for Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Captain Mohamed Ghanem, MSc, BSc, is a **Senior Master Marine Engineer** with extensive experience in **Marine Engineering** within **Oil & Gas, Refinery** and **Marine** industry. His expertise widely covers in the areas of **Global Maritime Distress Safety System (GMDSS)**, **Marine Operations**, **International Maritime Conventions & Codes**, **International Ship and Port Facility Security Code (ISPS) Code**, **Buoyage System & International Code of Signals**, **Oil & Gas Marine Terminals**, **Port Terminals Crisis Management & Major Emergency Response**, **Marine Hazards Prevention & Control**, **Single Buoy Mooring System (SBM)**, **Emergency Response Procedure**, **Oil Spill Management & Recovery**, **Oil Spill Management & Response**, **Oil Spill Prevention & Control**, **Oil Spill Combating Operations**, **Oil Spill Awareness**, **Oil & Gas Marine Terminals**, **Offshore Marine Operation Management**, **International Maritime Conventions & Codes**, **Vessel Hull & Machinery Survey**, **Oil & Gas Fields Offshore Survey**, **Oil & Gas Terminals Loading & Discharging**, **Marine Engineering**, **Terminal Operations**, **Seamanship**, **Shipping Overview**, **Marine Fire Fighting Equipment**, **Life Saving**, **Safety Process**, **Major Emergency Management & Control**, **Crisis Management during Oil Spill and Firefighting**. He is currently the **Jack Up Barge Engineer & Captain of ADNOC Drilling** wherein he oversees all the operations onboard the vessel including navigation, maintenance and compliance with local regulations.

During his life career, Captain Mohamed has gained his practical and field experience through his various significant positions and dedication as the **Barge Engineer & Marine Planner Onboard**, **Trainee Barge Engineer Onboard**, **Assistant Barge Master II Onboard**, **Assistant Barge Master Onboard**, **Site Engineer**, **Marine Surveyor**, **Ship Repair Engineer**, **Vessel Repairing Engineer**, **Metal Cutting & Welding Planner**, **Marine Engineer Onboard**, **Technical Manager** and **Maintenance Mechanical Engineer** from the Shelf Drilling Co, Marine & Engineering Consulting, ADMARINE III (X-GSF 103) at ADES, Oceandro Large Yacht Builder, International Inspection Company, Synchrony-Lift Works and B-Tech Company.

Captain Mohamed has **Master** and **Bachelor** degrees in **Naval Architecture & Marine Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Trainer**, **Assessor & Internal Verifier** by the **Institute of Leadership of Management (ILM)** and holds a certificate in **Marine III Engineer** and **OIM & Mobile Offshore Drilling Unit (MODU)**. He is an **active member** of The International Transport Workers' Federation (**ITF**), UK and has delivered numerous courses, workshops, trainings and conferences worldwide.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons

Course Fee

Dubai	US\$ 8,000 per Delegate + VAT . This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	US\$ 8,000 per Delegate + VAT . This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Echo Sounder Echo Sounding Technique • Echo Sounding System Configuration • Echo Sounding System Menu
0930 – 0930	Break
0930 – 1045	Global Positioning Systems (GPS)
1045 – 1230	GPS Works & Limitations
1230 – 1245	Break
1245 – 1330	GPS Datum & Projections
1330 – 1420	GPS Exercises
1420 – 1430	Recap
1430	Lunch & End of Day One



Day 2

0730 – 0830	PS Exercises
0830 – 0930	Radar & ARPA Introduction
0930 – 0945	Break
0945 – 1030	Radar Theory & Radar Display
1030 – 1230	Marine Radar
1230 – 1245	Break
1245 – 1420	Radar Performance Radar Plotting
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0830	Use of Radar in Navigation, the Radar & COLREG
0830 – 0930	ARPA Features, Display Control & Operations
0930 – 0945	Break
0945 – 1045	ARPA Operations (2)
1045 – 1230	Collision Assessments
1230 – 1245	Break
1245 – 1420	Target Trails & Anchor Watch
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Trial Maneuver
0830 – 0930	Review of Plotting Principal ARPA Systems
0930 – 0945	Break
0945 – 1045	ARPA Tracking Systems Setting Up & Maintaining Displays
1045 – 1230	Risk of over-Reliance on ARPA
1230 – 1245	Break
1245 – 1420	Standard ARPA Symbols Application of COLREG
1420 – 1430	Recap
1430	Lunch & End of Day Four

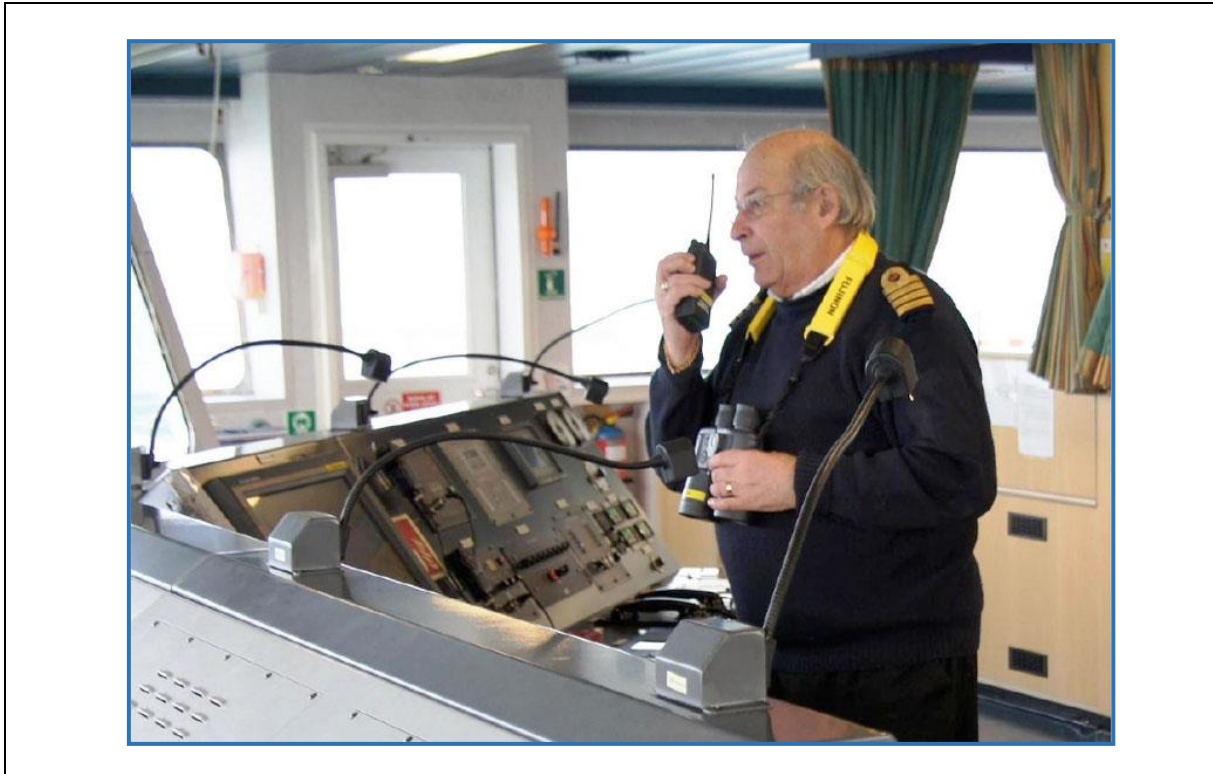
Day 5

0730 – 0830	Automatic Identification System (AIS)
0830 – 0930	Global Maritime Distress & Safety System (GMDSS) A1-A2 Equipment
0930 – 0945	Break
0945 – 1045	Vessel Data Recorder (VDR)
1045 – 1230	Speed & Distance Log/Doppler
1230 – 1245	Break
1245 – 1345	Ship Security Alert System (SSAS)
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises: -



Course Coordinator

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