COURSE OVERVIEW OE0042
Marine Hazards Prevention & Control
Collision, Grounding & Flooding

Course Title

Marine Hazards Prevention & Control: *Colision, Grounding & Flooding*



Course Date/Venue

Session 1: April 18-22, 2027/Meeting Plus 9, City Centre Rotana Doha Hotel, Doha, Qatar

Session 2: September 26-30, 2027/Meeting Plus 9, City Centre Rotana Doha Hotel, Doha, Qatar

3.0 CEUs (30 PDHs) AWARD

Course Reference

OE0042

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description







This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

Any vessel that experiences flooding of one or more of its compartments is exposed to the risk of losing its stability and thus the risk of sinking. Collision and grounding are considered to be the most relevant accident scenarios that may cause flooding of ships, and will thus be the topic of this course.

Even though a lot of effort is constantly being made to keep vessels safe and measures are always taken to avoid serious accidents, one can never completely eliminate the probability of a serious accident to occur on board a ship. If an incident takes place, one can try to prevent it from evolving into a serious accident by for example intentionally beaching a ship that is taking in water and thus keep it from sinking. If such measures fail however, an evacuation provides a last opportunity to minimize the consequences of the accident by reducing the number of fatalities. In such situations, the evacuation performance will be very important and an orderly and timely evacuation can save the lives of many people on board.

This course is designed to provide delegates with an up-to-date knowledge and skills on marine hazards prevention and control in general and collision, grounding and flooding in particular. It covers the marine hazards; distress and salvage; fire-fighting; static electricity and security; shipboard systems and ship's equipment; ship damage control and salvage; management of safety and emergencies; enclosed spaces; shipboard operations; carriage and storage of hazardous materials; human element considerations; special ship types; safety and fire protection; emergency preparedness and evacuation; communications and mooring; precautions on ship and terminal during cargo handling; and safety management.

The course presents probabilities of collision and grounding and investigates possible events subsequent to an incident, e.g. possibilities of flooding, sinking and capsizing, expected time to sink, etc. Evacuations in case of collision and grounding are also covered and the consequences are estimated in terms of expected loss of lives.

Course Objectives/Outcomes & Benefits for the Participants

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

- Apply and gain a comprehensive knowledge on marine hazards prevention and control including collision, grounding and flooding
- Be fully prepared during collision, grounding and flooding
- Learn the on-board lifesaving appliances, salvage and damage control equipment and techniques
- Describe marine emergency procedures, communication and protocols as well as distress alert and operations, lifesaving and rescue operations
- Discuss the marine hazards, boat lifesaving appliances, salvage and damage control
- Identify the various types of marine hazards and various scenarios
- Carryout preventive measures for collision, grounding, flooding, fire or other emergencies
- Recognize shipboard systems and ship's equipment
- Employ ship damage control, salvage as well as management of safety and emergencies
- Carryout shipboard operations, emergency preparedness and emergency evacuation
- Implement proper communications and mooring

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 conveniently saved in a **Tablet PC**.*

Who Should Attend

This course covers systematic techniques and methodologies on marine hazards prevention and control in general and collision, grounding and flooding in particular. It is suitable for tug masters, controllers (PO), skippers and senior marine 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

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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.

- 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.

Accommodation

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

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:



Capt. Mohamed Ghanem, MSc, BSc, is a **Senior Master 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**, **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 & Dischargin**, **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 oversee all the operations onboard the vessel including navigation, maintenance and compliance with local regulations.

During his life career, Capt. 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.

Capt. 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.

Course Fee

US$ 8,500 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

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 – 0745	*Registration & Coffee*
0745 – 0800	*Welcome & Introduction*
0800 – 0815	***PRE-TEST***
0815 – 0900	***Introduction to Marine Hazards*** *Hazard Types & Category ● Ignition Sources ● Portable Electrical Equipment ● Management of Electrical Equipment and Installations in Dangerous Areas ● Use of Tools ● Equipment Made of Aluminium ● Cathodic Protection Anodes in Cargo Tanks ● Communications Equipment ● Spontaneous Combustion ● Auto-Ignition ● Asbestos*
0900 – 0915	***Distress & Salvage*** *Types of Marine Hazards & Various Scenarios ● Procedures for Own/Other Vessel in Cases of Collision, Grounding, Flooding, Fire or Other Emergencies – Preventive Measures*
0915 – 0930	*Break*
0930 – 1140	***Distress & Salvage (cont'd)*** *Lifesaving Appliance & FiFi Equipment on Board*
1215 – 1230	*Break*
1230– 1415	***Distress & Salvage (cont'd)*** *Disabled Vessels, Distress Scenarios & Radio Communications Procedures*
1415 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0840	***Shipboard Systems*** *Fixed Inert Gas Systems ● Venting Systems ● Cargo and Ballast Systems ● Power and Propulsion Systems ● Vapour Emission Control (VEC) Systems ● Stern Loading and Discharging Arrangements*
0840 – 0915	***Ship's Equipment*** *Shipboard Fire-Fighting Equipment ● Gas Testing Equipment ● Lifting Equipment*
0915 – 0930	*Break*
0930 – 1140	***Ship Damage Control & Salvage*** *Boat Watertight Integrity & Damage Control ● Salvage System & Equipment*
1215 – 1230	*Break*
1230– 1415	***Ship Damage Control & Salvage (cont'd)*** *Post Flooding Procedures ● Stability, List & Trim Enhancement*
1415 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0840	***Ship Damage Control & Salvage (cont'd)*** *Small Vessels Stability & Flooding Calculations*
0840 – 0915	***Ship Damage Control & Salvage (cont'd)*** *Emergency Towage Operation*
0915 – 0930	*Break*
0930 – 1140	***Ship Damage Control & Salvage (cont'd)*** *Salvage Convention & Agreements*
1215 – 1230	*Break*
1230 – 1350	***Ship Damage Control & Salvage (cont'd)*** *Liabilities of Master, Crew, Owners/Charterers & Underwriters*
1415 - 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0840	***Management of Safety & Emergencies*** *The International Safety Management (ISM) Code ● Safety Management Systems ● Permit to Work Systems ● Hot Work ● Welding and Burning Equipment*
0840 – 0915	***Management of Safety & Emergencies (cont'd)*** *Other Hazardous Tasks ● Management of Contractors ● Repairs at a Facility Other Than a Shipyard ● Shipboard Emergency Management*
0915 – 0930	*Break*
0935 – 1140	***Shipboard Operations*** *Cargo Operations ● Stability, Stress, Trim and Sloshing Considerations Tank Cleaning ● Gas Freeing ● Crude Oil Washing*

1215 – 1230	*Break*
1230 – 1415	***Shipboard Operations (cont'd)*** *Ballast Operations ● Cargo Leakage into Double Hull Tanks ● Cargo Measurement, Ullaging, Dipping and Sampling ● Transfers Between Vessels*
1415 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

Day 5

0730 – 0840	***Emergency Preparedness*** *Terminal Emergency Planning – Plan Components and Procedures ● Definition and Hierarchy of Emergencies ● Terminal Emergency Plan ● Emergency Removal of tanker from Berth*
0840 – 0915	***Emergency Evacuation*** *Evacuation and Personnel Escape Routes ● Survival Craft ● Training and Drills*
0915 – 0930	*Break*
0930 – 1215	***Communications*** *Procedures and Precautions ● Pre-Arrival Exchange of Information ● Pre-Berthing Exchange of Information ● Pre-Transfer Exchange of Information ● Agreed Loading Plan ● Agreed Discharge Plan ● Agreement to Carry Out Repairs*
1215 – 1230	*Break*
1230 – 1345	***Mooring*** *Personnel Safety ● Security of Moorings ● Preparations for Arrival ● Mooring at Jetty Berths ● Berthing at Buoy Moorings*
1345 - 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
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

Jaryl Castillo, Tel: +974 6652 9196, Email: jaryl@haward.org