

<u>COURSE OVERVIEW OE0415</u> <u>Chemical Tankers</u>

<u>Course Title</u> Chemical Tankers

Course Date/Venue

Session 1: January 26-30, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar Session 2: July 06-10, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

o CEUs

30 PDHs)

Course Reference OE0415

Course Duration/Credits Five days/3.0 CEUs/30 PDHs

Course Description





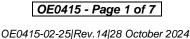


This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

Chemical tankers often have a system for tank heating in order to maintain the viscosity of certain cargoes, typically by passing pressurized steam through stainless steel 'heating coils' in the cargo tanks, transferring heat into the cargo which circulates in the tank by convection. All modern chemical tankers feature double hull construction and most hvdraulicallv have one driven. submerged cargo pump for each tank with independent piping, which means that each tank can load a separate cargo without any mixing.

Consequently, many oceangoing chemical tankers may carry numerous different grades of cargo on the same voyage, often loading and discharging these "parcels" at different ports or terminals. This means that the scheduling, stowage planning and operation of such ships requires a high level of coordination and specialist knowledge, both at sea and on shore.









Tank cleaning after discharging cargo is a very important aspect of chemical tanker operations, because tanks which are not properly cleaned of all cargo residue can adversely affect the purity of the next cargo loaded. Before tanks are cleaned, they must be properly ventilated and checked to be free of potentially explosive gases. Chemical tankers usually have transverse stiffeners on deck rather than inside the cargo tanks, in order to make the tank walls smooth and thus easier to clean using permanently fitted tank cleaning machines.

This course is designed to provide participants with a detailed and up-to-date overview on chemical tankers. It covers the cargos in chemical tanker, physical properties of cargo and hydrocarbon groups; the health hazards, hazards to the environment, reactivity hazards, flammability and explosivity hazards; the international and national codes and regulations; the bulk chemical codes and Annex II of Marpol 73/78; and the ship design, construction and equipment requirements, the cargo containment, ship types and survival capability.

At the end of the course, participants will be able to carryout cargo handling system, tank piping and valves, tank materials and coatings and cargo tanks ventilation systems; recognize pumps and unloading systems, cargo heating systems, inert gas systems and instrumentation; illustrate fire prevention and equipment, pollution prevention and protection and safety equipment; employ cargo handling, ballast operations, cargo planning and procedures and preparations for loading; measure and calculate cargo and apply tank cleaning operations; and implement ship-shore interface and emergency operations.

Course Objectives

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

- Apply and gain an in-depth knowledge on chemical tankers
- Discuss cargos in chemical tankers, physical properties of cargo and hydrocarbon groups
- Explain health hazards, hazards to the environment, reactivity hazards, flammability and explosivity hazards
- Implement the international and national codes and regulations and review bulk chemical codes and Annex II of Marpol 73/78
- Recognize ship design, construction and equipment requirements, cargo containment, ship types and survival capability
- Carryout cargo handling system, tank piping and valves, tank materials and coatings and cargo tanks ventilation systems
- Recognize pumps and unloading systems, cargo heating systems, inert gas systems and instrumentation
- Illustrate fire prevention and equipment, pollution prevention and protection and safety equipment
- Employ cargo handling, ballast operations, cargo planning and procedures and preparations for loading
- Measure and calculate cargo and apply tank cleaning operations
- Implement ship-shore interface and emergency operations



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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 provides an overview of all significant aspects and considerations of chemical tankers for cadets, crew and deck officers on board chemical tankers.

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

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.

Accommodation

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



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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: -

• 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.

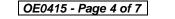
Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation 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.

• BAC

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 Jack-up Barge Captain with extensive experience in Drilling Rigs, Jackup Barge Operations and MODU within the Oil & Gas industry. His expertise widely covers in the areas of Jack-up Barges, Rig Safety Protocols, Drilling Rigs & Jack-up Barges Maintenance & Servicing, Drilling Rig Components, Naval & Marine Engineering, Marine Planning & MODU Stability, Rig Move Operation, UWILD, Stability Reports, Draft Surveys, Rig Reactivation & Under Water Surveys, Damage Survey & Cost Estimation, Tanker Vetting for

Terminals, Loading Master Certification for Oil & Gas Terminals, Marine Terminal Operation, Liquefied Gas Tankers & Jetty Operation, Global Maritime Distress Safety System (GMDSS), 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 Prevention & Control, Oil Spill Combating Operations, Oil & Gas Marine Terminals, Offshore Marine Operation Management, Vessel Hull & Machinery Survey, Oil & Gas Fields Offshore Survey, Oil & Gas Terminals Loading & Discharging, Terminal Operations, Seamanship, Shipping Overview, Marine Fire Fighting Equipment, Hull Damage Control, Vessel Rescue, Life Saving, Safety Process, Major Emergency Management & Control, Crisis Management during Oil Spill and Firefighting. He is currently the Jack Up Barge Captain & Marine Planner 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**, **Design Engineer**, **Ship Yard Site Engineer/QC Engineer**, **Marine Draft Surveyor**, **Ship Repair Engineer**, **Vessel Repairing Engineer**, **Metal Cutting & Welding Planner**, **Marine Engineer Onboard**, **Technical Manager**, **Maintenance Mechanical Engineer** and **Reserve Marine Officer** 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 **Bachelor's** degree in **Naval Architecture & Marine Engineering** and currently enrolled in **Master's** degree 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 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	Cargos in Chemical Tankers
0930 - 0945	Break
0945 - 1100	Cargos in Chemical Tankers (cont'd)
1100 – 1230	Physical Properties of Cargo Hydrocarbon Groups
1230 - 1245	Break
1245 - 1420	Health Hazards, Hazards to the Environment & Reactivity Hazards
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

Day Z	
0730 - 0900	Flammability & Explosivity Hazards
0900 - 0915	Break
0915 – 1100	International & National Codes & Regulations
1100 – 1230	Bulk Chemical Codes & Annex II of Marpol 73/78
1230 - 1245	Break
1245 – 1420	Ship Design, Construction & Equipment Requirements
1420 - 1430	Recap
1430	Lunch & End of Day Two

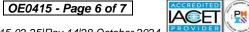
Day 3

0730 - 0930	Cargo Containment, Ship Types & Survival Capability
0930 - 0945	Break
0945 - 1100	<i>Cargo Handling System</i> <i>Tank Piping & Valves</i> • <i>Tank Materials & Coatings</i> • <i>Cargo Tanks</i> <i>Ventilation Systems</i>
1100 – 1215	Pumps & Unloading System & Cargo Heating Systems
1215 – 1230	Break
1230 - 1420	Inert Gas Systems & Instrumentation
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

Day 4	
0730 - 0930	Fire Prevention & Equipment
0930 - 0945	Break
0945 – 1100	Pollution Prevention, Protection & Safety Equipment
1100 – 1215	Cargo Handling & Ballast Operations
	Cargo Planning • Procedures & Preparations for Loading
1215 – 1230	Break
1230 - 1420	Cargo Measurement & Calculations
1420 - 1430	Recap
1430	Lunch & End of Day Four







AWS



Day 5

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0730 - 0930	Tank Cleaning Operations
0930 - 0945	Break
0945 - 1100	Tank Cleaning Operations (cont'd)
1100 – 1215	Ship-Shore Interface
1215 – 1230	Break
1230 - 1345	Emergency Operations
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course
1415 - 1430	Presentation of Course Certificates

Practical Sessions

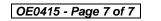
This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

Reem Dergham, Tel: +974 4423 1327, Email: reem@haward.org







²⁰ 0E0415-02-25|Rev.14|28 October 2024