

THE FUTURE OF LEARNING

Courses available online and in-person at the global ABS LNG Academy



ABOUTTHE ABS LNG ACADEMY

A coordinated effort between industry partners, the global ABS LNG Academy offers theoretical and practical training to support safety in the various aspects of LNG carriage and the safe handling of LNG as a marine fuel.



Qatar offers an ideal location for the establishment of ABS' global LNG Academy, allowing us to combine Qatar's LNG operational leadership with ABS' record of safety leadership and technical and regulatory LNG knowledge. This one-of-a-kind, state-of-the-art facility offers a unique learning experience both on board and through immersive classroom simulation training."

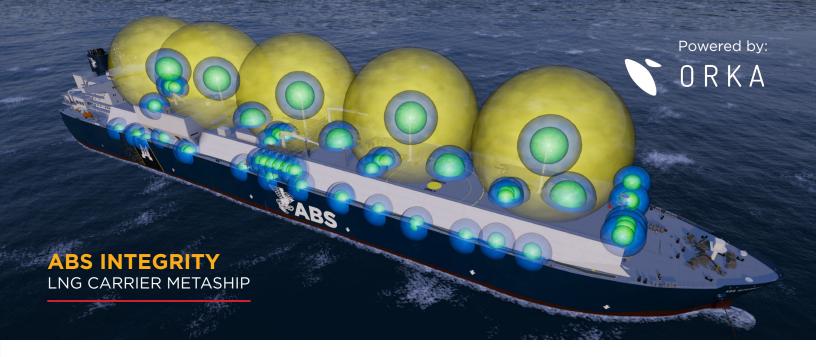
Christopher J. Wiernicki ABS Chairman and CEO





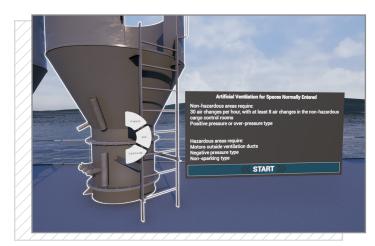


Supplementary simulator training rooms offer interactive courses from industry leaders.



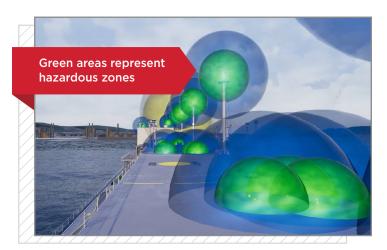


The ABS *Integrity* LNG carrier transports training to a new dimension: the metaverse. In cooperation with Nakilat, ABS is delivering the industry's first fully operational LNG metaSHIP. The ABS *Integrity* takes learners on virtual field trips, creating a dynamic and interactive simulation to reinforce their learning.



On board the ABS *Integrity*, personnel can put their theoretical and practical training to the test. Using their knowledge and skills, learners build expertise through practiced application in a safe, virtual simulation setting.

The metaSHIP experience is highly engaging, as learners interact with the vessel and its crew throughout the training. They can inspect equipment, take photographs, ask questions, view certificates, write reports and more. Each action completed on board by the learner is recorded and available for review and assessment, providing follow-up in person coaching experiences.



Difficult or obscure concepts are better understood when visualized on board the metaSHIP, such as recognizing gas hazardous zones and their safety implications. In these instances, the metaSHIP provides learning experiences even greater than those that can be safely provided while on the job.

Whether used during a metaSHIP walkthrough or as enhancements to classroom instruction, the metaSHIP elevates the learning experience. It also provides an element often missing in traditional marine training: practice. With hundreds of variables, learners can run through multiple scenarios, assess their results and try again.



The global ABS LNG Academy in Doha, Qatar serves the needs of LNG operators and managers through a fully comprehensive LNG training curriculum focused on the technical and operational aspects of LNG carriage and the handling of LNG as a marine fuel.

THE GLOBAL ABS LNG ACADEMY

TRAINING COURSES

The state-of-the art training facility goes beyond the average training experience, offering innovative online, virtual, classroom and immersive, simulated learning experiences.

GAS CARRIER FUNDAMENTALS

Gas carriers have cargo handling systems designed to handle liquefied gases in bulk. Cargo is often carried under high pressure and low temperature, which can cause structural damage to the ship if not handled properly. This course covers natural gas and the science behind it, safety systems and cargo hazards, and the ship loading and discharging operations cycle from a gas-free condition until a cargo change is planned.







LIQUEFIED NATURAL GAS (LNG) AS A MARINE FUEL

Gain perspective about the LNG-fueled fleet's historical development and future trends. This three-day, in-person course provides a comprehensive overview of LNG and the use of LNG as a marine fuel

3 days Guided classroom discussions

LNG AND GAS CARRIERS FAMILIARIZATION

This course provides an overview of ships carrying liquefied gases, an introduction to natural gas and an overview of cargo containment and safety systems for gas carriers.

1 day
Guided classroom discussions





Visit www.eagle.org/LNGacademy for the latest updates on our course catalog.



INTRODUCTION TO NATURAL GAS LIQUIDS

This course introduces the science behind natural gas, including characteristics and properties and the activities and supporting technologies for managing natural gas behaviors.

1 day
Guided classroom discussions

GAS CARRIER SHIP TYPES AND HAZARDS

This course covers the differences between ships carrying liquefied gas in bulk, cargo hazards and ship survival capabilities as well as an overview of safety systems for gas carriers.

1 day
Guided classroom discussions



CARGO CONTAINMENT SYSTEMS INTRODUCTION

This course provides an overview of containment systems for safely transporting liquefied gases in bulk, including characteristics, support systems, materials and insulation and advantages and disadvantages of the different types. GTT subject matter experts will cover membrane cargo containment systems.

2 days

Guided classroom discussions

GAS CARRIER SYSTEMS AND EQUIPMENT

This course explains the cycle for ship loading and discharging operations, from a gas-free condition until a change of cargo is planned. Overviews for the systems involved in cargo handling operations is also covered.

2 days
Guided classroom discussions





LNG ACADEMY COURSES

ABS has partnered with GTT Training to offer even more courses. With over 75 years of seagoing experience and more than 45 years in shoreside teaching and ship management positions, GTT Training has a wealth of experience in the LNG industry.



LNG CARGO OPERATIONS COURSE (SIGTTO MANAGEMENT LEVEL)

5 days

Comprised of lectures and simulator exercises

Focuses on understanding of the principles involved and the undertaking of all cargo operations that may be conducted onboard an LNG carrier.

GTT MEMBRANE TECHNOLOGIES COURSE

3 days

Lecture-based

Provides understanding of the concept, design, components and the construction of the membrane tank systems provided by GTT.

LNG TERMINAL MARINE COORDINATORS/ LOADING MASTERS COURSE

2-5 days, depending on the client Comprised of lectures and simulator exercises

Designed for those who may have a marine background, but who do not have much, if any, experience with LNG vessels and who will be taking up the role of coordinator between the vessel and terminal.

Contact **ABSLNGacademy@eagle.org** for additional information on our courses.

LNG, AMMONIA, METHANOL AND HYDROGEN: AN INTRODUCTION

1 day

Lecture-based

Introduction designed for those who require an understanding of the characteristics and hazards of using LNG, ammonia, methanol or hydrogen as a marine fuel and how they could help with the move to decarbonization.

USE OF LNG, AMMONIA, METHANOL OR HYDROGEN AS A MARINE FUEL

3 days

Lecture-based

Designed for those who require an understanding of the characteristics, hazards and operations for using LNG, ammonia, methanol or hydrogen as a marine fuel and how they could help with the move to decarbonization.

LNG MARINE FUEL OPERATIONS COURSE

4 days

Comprised of lectures and simulator exercises

Encompasses all the subjects related to the undertaking of all the operations that may be conducted within the LNG Fuel Gas Handling system on a vessel in a typical drydock-to-drydock voyage cycle, including a full bunkering operation.

FSRU & STS OPERATIONS COURSE

3 days

Lecture-based

Provides an understanding of the equipment and systems installed, the regassification and related cargo operations and the safety issues that need to be considered when operating floating storage and regasification units (FSRUs).

IGF LNG BUNKERING SIMULATOR COURSE

1 day

Comprised of lectures and simulator exercises

Provides the opportunity to undertake the simulated bunkering operations to meet the IGF STCW requirements for the issue of the Certificate in Proficiency for sailing on IGF Code vessels.







LNG COMMERCIAL OPERATIONS

ABS and Poten & Partners offer a collaborative LNG Commercial Operations course providing charterer personnel, shipowners and LNG traders a foundational understanding about how commercial operations of LNG carriers are effectively managed throughout their life cycles.

This interactive two-day course is presented by experienced LNG facilitators from ABS and Poten & Partners.



INTRODUCTION TO LNG AND LNG CARRIERS — ABS

Provides a high-level overview of the science behind LNG and the carriers that transport it. This module will introduce the properties of LNG, types of gas carriers, the primary systems onboard and industry applicable codes, regulations and associations.

LNG MARKET FUNDAMENTALS AND VALUE CHAIN — POTEN & PARTNERS

Gain insight into LNG market fundamentals, LNG supply and demand history and outlook, key trends, LNG pricing/trading and current/planned projects. Understand the key concepts of liquefaction and regasification terminals and FSRU. Key components of Sale and Purchase Agreements (SPAs).

LNG CHARTERING — POTEN & PARTNERS

This module will provide a comprehensive look into the world of LNG chartering including charter parties structure, key charter party clauses, differences between LNG and oil chartering, long-term versus spot chartering, insurances, force majeure and emergency response.

LNG CONSTRUCTION AND CONVERSIONS — POTEN & PARTNERS

Walk through an owner's perspective of LNG construction and conversions. Gain understanding of all aspects from initial engagement with the shipbuilder, to contract signing and through each stage of construction to sea and gas trials. This module also includes explanations of builder's warranties and guarantee claims procedures.



CARGO COMMERCIAL OPERATIONS — POTEN & PARTNERS

Provides an overview of the full spectrum of commercial operations, covering typical voyage operations such as loading and discharge as well as dry docking preparations and cycles. This course will also introduce vetting fundamentals, bills of lading, ship-shore compatibility, port agreements and more.

CUSTODY TRANSFER — POTEN & PARTNERS

Follow the custody transfer process while gaining understanding of the typical cargo documentation associated with each cargo. Explore LNG cargo and quality/quantity issues and the resulting claims procedures.

ABS has expanded its long-standing relationship with the Theta Training Center to offer several engine, ECDIS and liquid cargo handling simulation courses

Courses are available onsite at the ABS LNG Academy in our simulator training room, or online from any global location.

ENGINE ROOM SIMULATOR COURSES

The engine room simulator ERS 5000 is designed to train and assess the competence of engine department personnel, including officers in charge of an engineering watch, second and chief engineers and ratings forming part of engineering watch.

Courses include, but are not limited to:

- · MAN ME-GI Dual Fuel Engine
- · Wartsila WIN GD XDF (Dual Fuel) Engines
- Wartsila RT-FLEX WIN GD WX Electronic Engines
- TIER III Engines Exhaust Gases Recirculation MAN EGR System

ECDIS SIMULATOR COURSE

The ECDIS Simulator is based on Navi-Sailor ECDIS Multifunction Display MFD 4000 with inbuilt Navi-Planner voyage planning software, both fully compliant with the latest performance standards for shipborne navigation equipment.





LNG ACADEMY COURSES





Visit www.eagle.org/LNGacademy

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