Training Course:
Principles of Marine Hydrographic

4 - 8 May 2025
Dubai (UAE)

Training Course:
Principles of Marine Hydrographic

Introduction:

The Marine Hydrographic Training Program aims to provide participants with a comprehensive understanding of marine hydrography, its methodologies, tools, and applications. Participants will learn about the importance of hydrographic surveys in maritime navigation, safety, resource exploration, environmental protection, and scientific research.

Target Audience:

- Hydrographic surveyors

- Maritime navigators and ship crews

- Marine engineers and geologists

- Environmental scientists

- Government agencies responsible for maritime safety and management

- Oceanographers and marine researchers

Objectives:

Upon completion of the training program, participants will be able to:

- Understand the principles and concepts of marine hydrography.

- Apply various hydrographic survey techniques and technologies.

- Interpret hydrographic data and create accurate charts and maps.

- Identify potential hazards and navigational challenges in marine environments.

Outlines:

Day 1:

Introduction to Marine Hydrography

- Overview of marine hydrography: definition, importance, and scope

- Historical development of hydrographic surveying

- Introduction to international hydrographic organizations and standards

- Fundamentals of bathymetry: measurement of water depth

- Types of hydrographic surveys: single-beam vs. multibeam, side-scan sonar, LiDAR, etc.

Day 2:

Hydrographic Survey Techniques

- Principles of hydrographic survey planning and execution

- Equipment and tools used in hydrographic surveys: echo sounders, GPS, inertial navigation systems INS, remote sensing technologies, etc.

- Data acquisition methods and procedures

- Quality control and assurance in hydrographic surveys

- Case studies and practical demonstrations of survey techniques

Day 3:

Data Processing and Analysis

- Introduction to hydrographic data processing software

- Data editing, cleaning, and filtering techniques

- Bathymetric data interpolation and gridding

- Generation of depth contours and 3D models

- Interpretation of hydrographic data for charting and mapping purposes

Day 4:

Charting and Cartography

- Principles of nautical chart production

- Introduction to chart symbology and conventions

- Digital charting technologies and electronic navigational charts ENCs

- Techniques for updating and maintaining nautical charts

Day 5:

Applications of Marine Hydrography

- Role of hydrographic surveys in maritime navigation and safety

- Applications of hydrography in offshore oil and gas exploration, underwater infrastructure development, and marine resource management

- Environmental applications of marine hydrography: habitat mapping, coastal zone management, marine conservation

- Emerging trends and future directions in marine hydrography

Registration form on the Training Course:
Principles of Marine Hydrographic

Training Course code: MM235295 From: 4 - 8 May 2025 Venue: Dubai (UAE) - Training Course Fees: 5300
Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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