



*Training Course:  
Principles of Marine Hydrographic*

*2 - 6 February 2025  
Alexandria (Egypt)*

## Training Course: Principles of Marine Hydrographic

Training Course code: MM235295 From: 2 - 6 February 2025 Venue: Alexandria (Egypt) - Training Course Fees: 4750 € Euro

### 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 ENC's
- 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

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

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
 Position: .....  
 Telephone / Mobile: .....  
 Personal E-Mail: .....  
 Official E-Mail: .....

### Company Information

Company Name: .....  
 Address: .....  
 City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
 Position: .....  
 Telephone / Mobile: .....  
 Personal E-Mail: .....  
 Official E-Mail: .....

### Payment Method

- Please find enclosed a cheque made payable to Global Horizon
- Please invoice me
- Please invoice my company

### Easy Ways To Register

Telephone:  
+201095004484 to  
provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
or training@gh4t.com

Complete & return the  
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to: Global Horizon  
3 Oudai street, Aldouki,  
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