



*Training Course:
Principles of Marine Hydrographic*

*11 - 15 April 2027
Cairo (Egypt)*

Training Course: Principles of Marine Hydrographic

Training Course code: MM235295 From: 11 - 15 April 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

Introduction

Marine hydrography is a fundamental discipline that supports safe navigation, coastal development, offshore engineering, and environmental management. It involves the measurement and description of the physical features of oceans, seas, and coastal areas, providing essential data for nautical charting and marine operations.

This program, developed by [Global Horizon Training Center](#), provides participants with a solid foundation in the principles of marine hydrography. It covers core concepts, survey techniques, data acquisition, and the use of modern hydrographic equipment and standards.

Participants will gain essential knowledge and practical understanding of hydrographic processes, enabling them to contribute effectively to marine surveys, navigation safety, and maritime infrastructure projects.

Course Objectives

By the end of this program, participants will be able to:

- Understand the principles and scope of marine hydrography
- Identify key hydrographic survey methods and techniques
- Apply positioning and measurement systems GNSS, sonar
- Understand bathymetric data acquisition and processing
- Interpret hydrographic data for navigation and planning
- Recognize international standards and guidelines IHO
- Support safe navigation and marine project development

Target Audience

This program is designed for:

- Hydrographic Surveyors and Technicians
- Marine Engineers and Offshore Professionals
- GIS and Geospatial Specialists
- Port and Coastal Management Personnel
- Environmental and Marine Science Professionals
- Government and Maritime Authority Staff

Outline

Day 1: Introduction to Marine Hydrography

- Definition and importance of hydrography
- Applications in navigation, ports, and offshore projects
- Overview of marine environments and oceanographic basics
- Hydrographic standards and organizations IHO
- Coordinate systems and reference datums

Day 2: Hydrographic Surveying Methods and Equipment

- Survey planning and design
- GNSS positioning systems
- Single beam and multibeam echo sounders
- Side scan sonar and sub-bottom profilers
- Calibration and system checks

Day 3: Data Acquisition and Processing

- Hydrographic data collection techniques
- Tides, currents, and water level measurements
- Data quality control and validation
- Processing bathymetric data
- Introduction to hydrographic software tools

Day 4: Data Analysis and Interpretation

- Bathymetric mapping and visualization
- Seabed classification and analysis
- GIS applications in hydrography
- Interpretation of survey results
- Applications in navigation and engineering

Day 5: Applications and Best Practices

- Hydrography in port and coastal management
- Offshore and environmental applications
- Safety and operational considerations
- Emerging technologies AUVs, USVs, digital hydrography
- Final workshop: designing a hydrographic survey plan

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

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Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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