



*Training Course:  
Port Planning and Infrastructure Design*

*5 - 9 April 2026  
Kuwait  
Crowne Plaza Kuwait Al Thuraya City*

## Training Course: Port Planning and Infrastructure Design

Training Course code: MM234841 From: 5 - 9 April 2026 Venue: Kuwait - Crowne Plaza Kuwait Al Thuraya City Training  
Course Fees: € Euro

### Introduction

The main goal of this short course is to familiarize the participants with designing the layout of a port as well as the port-related structures in the port area or offshore areas such as breakwaters and berthing facilities.

### Prerequisites

Basic knowledge of the coastal processes such as wind, waves, tides, and tidal currents.

### Learning Objectives

Upon completion, the participant should be able to:

- List different types of sea-going vessels and identify the main characteristics of the ships.
- Explain the international functions of a port and different aspects of port management.
- Implement various steps in port master-planning.
- Determine the main dimensions of different terminals in the port.
- Determine the alignment and dimensions of the approach channel and the main dimensions of the wet infrastructure of the port.
- Design the details of berthing facilities for different types of berths.
- Include uncertainty in port planning and management by adaptive planning.

### Target Audience

This course is useful for engineers, and infrastructure managers involved in the design and/or supervision of ports and coastal structures.

Having knowledge about the coastal processes such as wind, waves, tides and tidal currents is necessary.

### Outline

#### Day 1: Maritime Transport & Port Functions

- Overview of maritime transport.

- Types of merchant ships and main characteristics.
- Commodities and vessel types.
- International functions of a port.
- Port management and organization.

## Day 2: Port Master Planning

- Port planning methodology and process.
- Key steps in master planning.
- Integration of port functions and facilities.
- Adaptive planning and handling uncertainty.
- Case studies of port master plans.

## Day 3: Design of Wet Areas

- Ship maneuvering and hydrodynamic behavior.
- Approach channel alignment and dimensions.
- Maneuvering areas within the port.
- Port basins and berth areas design principles.
- Safety and efficiency in wet infrastructure.

## Day 4: Terminals & Port Capacity

- Terminal services and their role in port operations.
- Types of terminals container, bulk, liquid, etc..
- Components of terminal infrastructure.
- Terminal capacity assessment.
- Determining terminal dimensions.
- Introduction to queuing theory in port planning.

## Day 5: Berthing Structures Design

- Site selection and investigations.
- Determination of design parameters.
- Design sequence of berthing structures.
- Typical layouts and components.
- Structural design criteria and construction methods.
- Choice of construction equipment.
- Case examples of berthing structures.

## Registration form on the Training Course: Port Planning and Infrastructure Design

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

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