



## SHORELINE MANAGEMENT

How to protect and develop our coasts!

The aim of this modular, instructor-led, online course is to provide professionals involved in shoreline management with available tools, methodologies and procedures, which can help sustainable management of the physical environment in the coastal zone. The course will be based on DHI's e-Book '[Shoreline Management Guidelines](#)'.

An increasing number of conflicts in coastal areas and unintended consequences are caused by the extensive development of industry, infrastructure and tourism development projects - and at the same time climate change expose a challenge at many locations. In addition, many other human activities deprive our shores of a natural supply of sand, such as coastal protection works, river regulation works, sand mining, dam constructions, port constructions etc.

Coastal environments are transient, continuously reshaped by the natural processes of the waves, tides, surges, erosion and deposition. The course will provide you with an understanding of how to work with nature in planning for various human projects interfering with the dynamic shoreline in the coastal zone.

### COURSE TOPICS AND MODULES

- **Module 1 - Introduction to Shoreline Management**  
Keywords: what is Shoreline Management and when is it relevant? Shoreline Impact Assessment. Overview of human projects interfering with the dynamic coastal zone. Coastal processes and classification.
- **Module 2 - Protecting our coast. Coastal land scaping**  
Keywords: Shoreline erosion and coastal flooding. Shore- and coast protection schemes. Beach restoration. Introduction to numerical modelling tools in coastal modelling.
- **Module 3 - Waterfront developments. Ports and water intakes/outfalls**  
Keywords: Waterfronts in the natural environment. Design of artificial beaches. Impacts from Ports and water intakes/outfalls. Optimisation of port layouts towards reduced harbour sedimentation and reduced shoreline impacts.
- **Module 4 - Planning for climate change**  
Keywords: Climate changes and the coastal zone. Coastal vulnerability, resilience, adaptation. Impacts on shorelines and from existing structures. Risk levels and planning ahead.

### TARGET GROUP AND PREREQUISITES

Professionals in the fields of coastal consulting, master planning, and coastal administration active in the areas of shoreline management, planning of coastal development schemes and port planning. It is preferable, but no condition, that participants have knowledge on sediment transport and coastal processes.

### THE ACADEMY BY DHI

THE ACADEMY offers a palette of courses and capacity building packages designed to fit your needs and challenges. We offer standard and/or tailored training - face-2-face as well as online.

**MIKE Powered by DHI** courses focus on practical skills, hands-on exercises and teaching you how to get the most out of your software. These courses also enable you to understand the power of the MIKE tools for building decision support systems.

**Thematic courses** allow you to apply concepts, applications and decision support principles to the entire business process within current areas: aquaculture and agriculture, energy, climate change, flooding, coast and marine, surface and groundwater, urban water, industry, environment and ecosystems, product safety and environmental risk, etc.

**Our trainers** are experienced professionals, many of whom are recognised international experts in their fields. The use of highly skilled trainers guarantees the quality of THE ACADEMY courses.

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