

Course: Port Development

credits: 3

Course code	BVVH19DEPD	Modes of delivery	Guest lecture
Name	Port Development		Individual supervision
Study year	2019-2020		Lecture
ECTS credits	3	Assessments	Port Development - Written, organised by STAD examinations
Language	English		
Coordinator	D. Ernsten		

Learning outcomes

1. The student learns to recognize the different modalities necessary for global transport of goods and gets
2. The student knows the steps needed to design a green port development based on given throughput figures and forecast figures.
3. The student can recognize the different types of quays, revetments, breakwaters and mooring facilities, their function and scope
4. The student is capable of taking into account the hydraulic and geotechnical aspects in a functional and structural design of quays, revetments, breakwaters and mooring facilities
5. The student is able to evaluate the feasibility of an investment based on nett present value calculation.

Content

In this module we focus on the following topics: transport economics, shipping, nautical matters, safety and logistics. Knowledge of these disciplines brings insight to determine the basic dimensions of approach channels and turning basins, of quays and terminals and of the corridors for hinterland connection. The lectures provide information about the design and execution of quay walls. The most important and common types of quay walls will be considered. We will investigate the hydraulic parts of quay walls; water levels, waves and ice loads. The geotechnical aspects of quay walls will be considered as well. Finally, we will take a look at how to design of quay walls, considering functional and structural design aspects.

Included in programme(s)

Minor Delta Engineering
Built Environment Exchange Delta Engineering (spring)

School(s)

School of Architecture & Built Environment