Maritime and Port Engineering

See- und Hafenbau

Prüfungs-/Studienleistungen	Art/SWS	Sprache	LP	Semester	Prüfnr.
K / unbenoteter Vortrag	2V / 2Ü	E	6	SS	?
Dauer der Hausarbeit/-übung					
30					

Ziel des Moduls

The module imparts knowledge about the planning, managementand maintenance of ports and harbours. Furthermore, external speakers share their practical experiences in the field of Maritime and Port Engineering.

After the successful participation in this course the students are able to:

- Assess the role and development of maritime navigation and logistical concepts
- Plan and classify harbour structures
- Understand the management and maintenance of ports and port infrastructure
- Recognize/estimate hydraulic processes within ports and their interactions with vessels
- Estimate the importance of economical and ecological aspects for ports
- Classify different dredging technologies
- Understand, describe and assess relevant scientific literature

Inhalt des Moduls

- Planning, layout and logistics of ports and harbours
- Economical aspects of Maritime and Port Engineering
- Infrastracture and management of ports and harbours
- Ecological aspects in regard of maintenance and operation
- Cross-shore and lateral sediment transport
- Design and maintenance of breakwaters and piers, seawalls and jetties
- Dredging technologies
- Small harbours and sport boat marinas
- Practical examples of Maritime and Port Engineering

Workload	180 h (60 h Präsenz- und 120 h Eigenstudium einschl. Prüfungs-/Studienleistung)
Empf. Vorkenntnisse	Wasserbau und Küsteningenieurwesen
Literatur	BRUUN, P., Port Engineering. Vol. 1 & 2, Gulf Publishing Company, Fourth Edition, 1990 TSINKER, G.P., Port Engineering – Planning, Construction, Maintenance and Security, John Wiley & Sons, 2004. CEM, 2002. Coastal Engineering Manual. United States Army Corps of Engineers (USACE), http://140.194.76.129/publications/eng-manuals/ EAK: Empfehlungen für die Ausführung von Küstenschutzbauwerken, Die Küste, 65, 2002
Medien	PPT, Matlab-Übungen
Besonderheiten	Big hydraulic engineering excursion (Pentecost week)

Modulverantwortlich	Schlurmann, Torsten
Dozenten	Schlurmann, Torsten; Paul, Maike; Visscher, Jan
Betreuer	Scheiber, Leon
Verantwortl. Prüfer	Schlurmann, Torsten
Institut	Ludwig-Franzius-Institut für Wasserbau, http://www.lufi.uni-hannover.de Fakultät für Bauingenieurwesen und Geodäsie

Studiengangs-spezifische Informationen	P/W und Kompetenzbereich in Abhängigkeit von Vertiefungsrichtung			
	Konstruktiver Ingenieurbau	Wasser- und Küsteningenieurwesen	Windenergie-Ingenieurwesen	Baumanagement
	W FSV	W FSV	W ÜI	W FSV