



Course fee

The course fee for NCK-PhD-students is € 1250 (excl. btw) and for all other participants € 2500 (excl. btw). These fees include board and lodging (breakfast and towels not included), course material, bicycle, and a number of excursions, and last but not least a fortnight of high-level lectures and training.

Course material

To limit the costs of the course, no printed course material will be supplied in advance. Instead, a CD-rom containing all lectures, and possibly some additional background material provided by the lecturers, will be sent to the participants after the course. Some course material can also be consulted during the course, through laptops and internet connection available to the participants. This year we aim at providing course material through a coastal-wiki as well. The official language of the course is English. All lectures and lecture material will thus be presented in English.

Logistics

The course will be held in the conference rooms of NIOZ (Royal Netherlands Institute for Sea Research). The lecturers, organizing staff and participants will stay in holiday bungalows in Bungalowpark Dennenoord. The participants will share twin-bedded rooms in 6-person bungalows; breakfast is to be organized by the participants themselves. Dennenoord is about 9 km from the NIOZ buildings, i.e. about 30 – 40 minutes by bike, the rent of which is included in the course fee. Because poor weather may occur in The Netherlands, it would be convenient if some participants would bring a car (at his/her own costs).

NIOZ
Landsdiep 4, 1797 SZ Den Hoorn – Texel, The Netherlands
Tel: + 31 (0) 222 369300
<http://www.nioz.nl>

Dennenoord
Grensweg 106, 1791 NK Den Burg – Texel
Tel: +31 (0) 222 312423,
<http://www.dennenoord.com>

Registration

Registration can be done:

- by regular mail: send the registration form to Secretariaat PAO, Antwoordnummer 10037, 2600 VB Delft
- by fax: fax the registration form to +31 (0) 15 2784619
- by email: info@pao.tudelft.nl, mentioning NCK Summer School 2011 and whether PhD-student
- or through the internet: www.pao.tudelft.nl

Deadline for registration is April 30, 2011.

Organization

Overall coordination: Prof. J.A. Roelvink (UNESCO-IHE /Deltares), dr. K.M. Wijnberg (UT), dr. J. Mulder (Deltares /UT) and dr. M.J. Baptist (IMARES)

Local logistics: Dr. H. Ridderinkhof (NIOZ)

Administration: Mrs. T. Bruinsma (PAO)

Catering: Mr. R. Boom (Texel Catering)

NCK Summer School

Estuarine and Coastal Processes in relation to Coastal Zone Management

June 20 - July 1, 2011
Royal Netherlands Institute for Sea Research NIOZ, Texel, Netherlands

Course leaders

Prof.dr.ir. J.A. Roelvink, UNESCO-IHE / Deltares
Dr. K.M. Wijnberg, University Twente
Dr. J.P.M. Mulder, Deltares / University Twente
Dr.ir. M. Baptist, Wageningen IMARES



UNIVERSITEIT TWENTE.

UNESCO-IHE
Institute for Water Education



Goal and scope

The bi-annual Summer School of the Netherlands Centre for Coastal Research (NCK) has the objective to provide young engineers and scientists, specializing in coastal and estuarine processes, with a common background in knowledge, tools and skills. The Summer School covers a range of physical and ecological topics in the coastal area. As a central theme, it links these topics to the Dutch Wadden Sea area and its surroundings, i.e. including the barrier islands and the North Sea.

Who can attend?

The NCK Summer School is open for all NCK PhD-students. Moreover, we aim at participation of young staff members of the non-academic NCK-partners, as well as participants from other organizations with interest in the NCK-curriculum. Because of the intensity of the programme and available accommodation, the total number of participants is limited to 24. In case of more than 24 applications, the organizers will make a selection based on criteria to be decided upon in close concert with the NCK Programme Committee.

Preliminary programme

The course starts on Monday, June 20 9:30 hrs and finishes on Friday, July 1 17:30 hr. See also www.NCK-web.org for further information.

	morning	afternoon	evening
June 20	Registration & course lectures	Course lectures	No programme
June 21	Course lectures	Case studies	Lecture on NIOZ
June 22	Field work	Field work & Navicula II	No programme
June 23	Course lectures	Case studies & Navicula III	Lecture on Waddenzee issues
June 24	Course lectures	Case studies	Boat trip TX10 Low water: wadlopen
June 25	Course lectures	Field trip Texel	No programme
June 26	Optional programme: Fieldtrip to Vlieland by Vliehors Expres (at additional costs) see http://www.vliehorsexpres.nl		
June 27	Course lectures	Case studies	No programme
June 28	Course lectures	Case studies	Field trip Eierlandse Dam
June 29	Course lectures	Case studies & poster session	No programme
June 30	Course lectures	Case studies	Farewell beach barbecue
July 1	Course lectures	Presentation case studies	End of programme

Course lectures

The NCK Summer School will provide in-depth lectures by senior NCK-scientists, combined with training in the form of case studies, a field survey and field trips. The following lecturers have promised to contribute on the indicated topics:

- Long-term morphology, Dr. Ad van der Spek (Deltares)
- Ecological impact on physical processes, Prof. Peter Herman (NIOO)

- Geophysical flows, Dr. Theo Gerkema (NIOZ)
- Medium-term morphology, Dr. Gerben Ruessink (UU)
- Morphological model concepts and morphological modelling, Dr. Zheng Bing Wang (Deltares/TUD)
- Tides in shallow water, Prof. Herman Ridderinkhof (NIOZ)
- Cohesive sediment transport processes, Dr. Han Winterwerp (TUD/Deltares)
- Data analysis in morphology, Dr. Kathelijne Wijnberg (UT)
- Non-cohesive sediment transport processes, Prof. Leo van Rijn (Deltares/UU)
- Numerical modelling of hydrodynamics and transport processes, Prof. Guus Stelling (TUD)
- Morphological model concepts and morphological modelling, Prof. Dano Roelvink (UNESCO-IHE/Deltares)
- Waves in shallow water, Prof. Ad Reniers (TUD)
- Stability analyses of seabed and tidal inlets, Prof. Suzanne Hulscher (UT)

Coastal zone management case studies

Safety against flooding in an optimal combination with other coastal functions like nature, recreation and sustainable economic activities, is the principal objective of coastal zone management. This general notion has been specified in the law (Waterwet, 2009), in EU Directives (Birds- and Habitat Directive and Water Framework Directive) and policy documents. The Nationaal Waterplan (2009) introducing the slogan: "The Netherlands, a safe and liveable delta, now and in the future", develops a first elaboration of the Delta-programme aiming at improvement of safety conditions on the short (until 2015), medium (2015–2050) and long term (>2050). Considering the Wadden Sea, issues in the Deltaprogramme and in coastal zone management may be divided into two coherent subjects: management of the island coasts and management of the Wadden Sea basins. From these subjects several topics will be selected to be analysed in groups consisting of four to five participants.

Example topics are:

- How do nourishments affect nearshore morphology and hydrodynamics? What is the effect on coastline position and on safety?
- What is the effect of large scale hard structures (e.g. the 'Eierlandse Dam' jetty) on the adjacent coast?
- What is the effect of large scale hard structures on the evolution of a tidal inlet and the back barrier basin?
- How do sea level rise and gas extraction affect large scale stability of the Wadden Sea basins?
- What is the magnitude and quality of sediment exchange between North Sea and Wadden Sea?
- Which factors determine habitat characteristics (e.g. tidal marshes)?

These topics will be related to specific case studies to be analysed by the participants during the Summer School. NCK-postdocs will supervise the work on the case studies. On the last day of the Summer School each group will present their results.

Other activities

All participants will get the opportunity to gain some practice in field measurements, amongst which a survey-trip on the NIOZ research vessel Navicula. In addition to course lectures, dedicated lectures and field trips are organized to enhance the participant's understanding of the Wadden Sea physical and eco-system and its management issues, such as gas mining, shell-fish fisheries, etc. All participants are expected to present the results of their activities. A poster session has been scheduled in the second week of the Summer School.

