



# Future Deltas course

**Let's ensure future delta life together –**  
join us for a 5 day training course this summer  
28 August – 1 September 2017

Are you working on river flooding, coastal dynamics, land subsidence, salt water intrusion, livelihoods, governance or environmental law? These and other interdisciplinary topics are all important for the sustainable management of coastal river deltas worldwide, which are currently under pressure of human impact and climate change. In this course, we offer an unique opportunity to look beyond your own (research or professional) boundary, and place your expertise in a broader context of natural (e.g. physical, biological, geochemical) and social (e.g. governance, law, socio-economic) processes affecting delta systems and delta life.

To deal with the changing delta conditions and to ensure a sustainable future delta life, we need to understand the driving forces behind the processes of change in a delta, increase our ability to predict impacts, and optimise management and governance solutions. Examples of changing conditions in deltas are: accelerated sea-level rise caused by global warming, altered supply of sediment and water due to dike, dam and reservoir construction, land subsidence caused by drainage and extraction of groundwater and hydrocarbons, and loss of habitats and biodiversity as a result of land use change. These changes affect livelihood conditions, and potentially, societies.

An interdisciplinary team of teachers, researchers, and practitioners is ready to guide you on this course. By means of lectures, group sessions, and excursions in the Rhine-Meuse delta (NL) you will learn:

- 1 How a delta system operates;
- 2 Why an interdisciplinary approach is needed for sustainable delta management;
- 3 How to apply this knowledge to find sustainable delta management solutions for specific delta areas or cases ('science-meets-practice').

We will focus on four main delta themes: land subsidence, flooding, salt water intrusion, and urbanisation. Each of these themes are addressed following the Future Deltas approach of understanding drivers, predicting impacts and optimising management solutions.

## COURSE AIM

The aim of this course is to provide you with a thorough integrated understanding of the physical, ecological, institutional, socio-economic and legal drivers of change in deltas, their impacts, and of solutions for sustainable management of deltas.

## COURSE LEADERS & LECTURERS

Dr. Sanneke van Asselen, dr. Esther Stouthamer, dr. Frank van Laerhoven.

Lecturers include (more to be confirmed): dr. E. Stouthamer, prof. dr. H. Middelkoop, dr. R. van de Wal, dr. M. Hefting, dr. H.K. Gilissen, dr. S. van Asselen, dr. A. Keessen, prof. dr. A. Zoomers. In addition, local practitioners will be invited.

## PERIOD

28 August – 1 September 2017

## LEVEL

Advanced master level

## TARGET GROUP

Professionals, postdocs, PhD's, and master students. Participants should have a background in earth sciences, ecology, human geography, spatial planning, environmental governance or environmental or water law.

*For master students:* The daily board of Future Deltas will decide on participation of master students based on a letter of motivation and CV, which should be submitted to: [s.vanasselen@uu.nl](mailto:s.vanasselen@uu.nl).

## FEE

Normal fee\* 500 euro

Master students/PhD's fee\* 300 euro

\*Including transportation, lunch, drinks and snacks during the day, excluding accommodation, breakfast and dinner.

## PRELIMINARY PROGRAMME & LOCATION

*Day 1:* Multi-disciplinary introductory lectures on delta issues worldwide, interactive group sessions and discussions (Utrecht).

On-site thematic days:

*Day 2:* Land Subsidence (west of Utrecht).

*Day 3:* Flooding (near Middelburg).

*Day 4:* Salt water intrusion, Coastal dynamics and Water quality (near Middelburg).

*Day 5:* Delta cities (Dordrecht & Biesbosch) + Wrap-up session (Utrecht).

Each thematic day consists of lectures, group sessions, and field visits.

## REGISTRATION AND MORE INFORMATION

[www.uu.nl/futuredeltas](http://www.uu.nl/futuredeltas) and

<https://www.utrechtsummerschool.nl/courses/science/future-deltas>.

Registration deadline: 25 June 2017

## CONTACT

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## ABOUT FUTURE DELTAS

Future Deltas is an interdisciplinary research focus area of Utrecht University (UU), aimed at developing integrated knowledge for future delta life. It involves UU scientists of three faculties (Geosciences, Science, and Law, Economics and Governance). [www.uu.nl/futuredeltas](http://www.uu.nl/futuredeltas)