

## Summer School 2012 – Enhanced technologies for water &amp; wastewater treatment in urban systems

## Week 1

	Monday, 1.10.	Tuesday 02.10.	Wednesday 03.10.	Thursday 04.10.	Friday 05.10.	Saturday 06.10.	Sunday 07.10.
<b>Morning</b> 09:00-12:00	<b>Welcome and Introduction</b> <b>Lecture:</b> "Novel cultural landscapes in the Ruhr metropolis" (Prof Dr J. Dettmar, TU Darmstadt) <b>Lecture:</b> Water, Hygiene and Culture: A Historical Case Study (Prof Dr J. Gurr, UDE)	<b>Water &amp; Culture in ...</b> Talks by participants	<b>Workshop</b> Introduction into workshop Definition of groups and tasks	<b>WWTP Schwerte</b> <b>Lecture:</b> Water Management in the Ruhr Basin (Dr.-Ing. Th. Grünebaum, Ruhrverband) <b>Lecture:</b> Advanced Treatment of Municipal Wastewater for Micropollutants Removal (Dr.-Ing. Th. Grünebaum, Ruhrverband) <b>Site visit</b>	<b>WWTP Bottrop</b> <b>Lecture:</b> Reconstruction of the river Emscher System (Dr. Georg Schmelz, Emschergenossenschaft) <b>Lecture:</b> Central sewage sludge incineration (Dr. Georg Schmelz, Emschergenossenschaft) <b>Site visit</b>	<b>Düsseldorf</b> <ul style="list-style-type: none"> <li>• Aquazoo</li> <li>• Boat trip (Media Harbour)</li> <li>• Guided tour "Altstadt"</li> </ul>	<b>Self-determined day</b>
<b>Afternoon</b> 13:30-17:00	<b>Basics in water &amp; wastewater treatment I</b> <b>Lecture:</b> Integrated water management: issues, aims and problems (Prof Dr A. Niemann, UDE) <b>14:30 Lecture:</b> Overview of technologies for drinking water treatment (Dr. R. Hobby, UDE) <b>Lecture:</b> Micropollutants in the water cycle: occurrence, analysis and advanced technologies (Dr. J. Türk, IUTA)	<b>Renewable Energy</b> <b>Lecture:</b> Renewable Energies (Dr M. Krupp, Research Centre Jülich) <b>Lecture:</b> BioHyMeth (Dr R. Brunstermann, UDE) <b>Lecture:</b> Implementation of renewable energies (Prof Dr A. Niemann, UDE)	<b>Workshop</b> Self -determined group-work	<b>Dortmund/ Emscher</b> <ul style="list-style-type: none"> <li>• Emscherquellhof (Emscher well) Holzwickede (Prof. Dr. B. Teichgräber, Emschergenossenschaft) [Lunch]</li> <li>• Lake Phoenix</li> </ul>	<b>WWTP Emschermündung</b> Introduction and site visit (Dipl.-Ing. Stefan Stegmann, Emschergenossenschaft)		
<b>Evening</b>	Optional evening programme	<b>Zeche Zollverein</b> Guided tour Welcome dinner incl. Professors in old mining house "Steigerhaus"	Optional evening programme	Optional evening programme	<b>Landschaftspark Duisburg-Nord</b> Guided tour „Night Light“		

## Week 2

	Monday 08.10.	Tuesday 09.10.	Wednesday 10.10.	Thursday 11.10.	Friday 12.10.	Saturday 13.10.	Sunday 14.10.
Morning	<b>Water &amp; Governance</b> <b>Lecture:</b> <i>Different water prices in Europe – Critical assessment and implications</i> (Prof Dr M. Oelmann, HS Ruhr West) <b>Lecture:</b> <i>Regulation frameworks in developing countries</i> (Prof Dr M. Oelmann, HS Ruhr West)	<b>Drinking Water Supply</b> RWW plant in Mülheim Introductory talk and site visit Hartmut Insel (RWW)	<b>Workshop</b>	<b>Workshop</b> Finish of report	<b>Workshop</b> Presentation of results	<b>Cologne</b> Cathedral Guided tour flood management	<b>Essen</b> <i>optional</i> <ul style="list-style-type: none"> <li>• Guided tour Villa Hügel</li> <li>• Lake Baldeney</li> <li>• Gruga</li> </ul>
Afternoon	<b>Water &amp; Governance</b> <b>Lecture:</b> <i>Private Public Partnerships</i> (Prof. Karsten Haneke, HS Bremerhafen) <b>Lecture:</b> <i>A company's view on PPP</i> (Prof. Karsten Haneke, HS Bremerhafen)	<b>German Association for Water, Wastewater and Waste</b> <b>Talk:</b> <i>What is the German Association for Water, Wastewater and Waste?</i> (Dipl.-Ing. R. Heidebrecht, DWA) <b>Group work:</b> <i>Modular training boxes</i>	<b>Soft skills</b> <b>Guided Work shop:</b> <i>Managing strategies</i> (Gerald Jones)	<b>Sustainability</b> <b>Lecture:</b> <i>Application of the framework for Strategic Sustainable Development (FSSD)</i> (Prof Dr A. Smits, Radboud University, NL) <b>Lecture:</b> <i>Community of Practise</i> (Prof Dr A. Smits, Radboud University, NL)	<b>Feedback</b> Transfer of results to home countries Discussion of problems and perspectives		
Evening	??? ...	Optional evening programme	Optional evening programme	<b>Binnenhafen Duisburg</b> Guided tour Goodbye dinner at "Schifferbörse"	Optional evening programme		Departure