

# Course Schedule 2012

## South Africa



We help build your expertise

Cities  
Groundwater  
Water resources

**MIKE**  
BY DHI 



## COURSE SCHEDULE 2012

### South Africa

	Product	Title	Dates	Location	
CITIES	WEST	Introduction to modelling of waste water treatment plants	13-15 March	Cape Town	
	MIKE URBAN CS	Introduction to modelling of water collection systems	Upon request	Pretoria	
WATER RESOURCES	MIKE 11	Introduction to river and channel modelling	25 – 27 January	Pretoria	
	MIKE 11	Introduction to river and channel modelling	02 – 04 May	Pretoria	
	MIKE 11	Introduction to river and channel modelling	14 – 16 November	Pretoria	
	MIKE 11 REAL-TIME	Introduction to real-time forecasting	14-17 February	Pretoria	
	MIKE 11 REAL-TIME	Introduction to real-time forecasting	14-17 August	Pretoria	
	MIKE SHE	Integrated catchment modelling	06-09 March	Pretoria	
	MIKE SHE	Integrated catchment modelling	16-19 October	Pretoria	
	MIKE BASIN	Introduction to river basin modelling (in Portuguese )	30 January -1 February	Luanda, Angola	
	MIKE BASIN	Introduction to river basin modelling	16-19 April	Pretoria	
	MIKE BASIN	Introduction to river basin modelling	19-22 June	Pretoria	
	MIKE BASIN	Introduction to river basin modelling	18-21 September	Pretoria	
	MIKE 11 ECO Lab	1D water quality and ecological modelling	September— dates to be finalised	Pretoria	
	JUN INTER	FEFLOW	Introduction to groundwater modelling	06-08 August	Pretoria

#### DHI South Africa and our collaboration with the research world

DHI South Africa has signed Memorandums of Understanding (MOUs) with a number of universities and research organisations in South Africa and other SADC countries. The MOUs allow these research organisations free use of our Software for research purposes.

This is an investment by DHI South Africa in the human resource capital of the SADC in order to help find sustainable solutions to the growing water challenges in the region.



# COURSE DESCRIPTIONS

CITIES	<p><b>WEST</b> Introduction to modelling of wastewater treatment plants</p> <p>Dates 13 - 15 March</p>	<p>The three-day, hands-on course provides professionals with an overview of the aspects to be addressed when working with modelling biological wastewater treatment plants. You will learn how to set up a project in WEST; conduct a dynamic simulation; and set up and execute advanced experiments (such as Uncertainty Analysis or Parameter Estimation).</p>	<ul style="list-style-type: none"> <li>• The WEST GUI</li> <li>• Project set-up (plant layout)</li> <li>• Dynamic simulation</li> <li>• Result analysis and visualisation</li> <li>• Objective evaluation</li> <li>• Advanced experiment types</li> </ul>
	<p><b>MIKE URBAN CS</b> Introduction to modelling of collection systems</p> <p>Upon request</p>	<p>This two-day, hands-on course provides a practical introduction to hydraulic modelling of wastewater and urban drainage networks. You will learn how to set up and run MIKE URBAN CS and turn model outputs into professional presentation material. The course aims at enabling you to perform the basic functions of MIKE URBAN CS.</p>	<ul style="list-style-type: none"> <li>• Project setup, including units, coordinate system, etc.</li> <li>• Data organisation, import/export of external data</li> <li>• Numerical and graphical editing and quality control</li> <li>• Dynamic simulation of rainfall/runoff and pipe flow</li> <li>• Result analysis and visualisation</li> </ul>
WATER RESOURCES	<p><b>MIKE 11</b> Introduction to river and channel modelling</p> <p>Dates 25 - 27 January 02 - 04 May 14 - 16 November</p>	<p>This three-day, hands-on course gives an introduction to 1D river modelling with MIKE 11. The aim is to go through the basic features of MIKE 11 to enable you to set up and run simple river models and to evaluate their results.</p>	<ul style="list-style-type: none"> <li>• MIKE 11 modular structure</li> <li>• MIKE 11 graphical user interface (GUI)</li> <li>• Schematisation and application of simple river models</li> <li>• Modelling basic hydraulic structures</li> </ul>
	<p><b>MIKE 11 REAL-TIME</b> Introduction to real-time forecasting</p> <p>Upon request</p>	<p>The application areas of FLOOD WATCH cover real-time flood forecasting and warning; decision support and scenario analyses; real-time optimisation of dams and reservoirs dissemination and flood mapping; water quality forecasting. Designed for use in real-time environments, FLOOD WATCH integrates spatial data, real-time data, forecast models and dissemination tools in a GIS or web-based environment. This four-day, hands-on course is designed for academics and professionals working within real-time water resources planning and management, including flood forecasting, environmental forecasting, reservoir optimisation and operations and water demand modelling.</p>	<ul style="list-style-type: none"> <li>• Configuration of FLOOD WATCH to work with sample data and forecast models</li> <li>• Configuration of FLOOD WATCH to carry out manual or automated forecast tasks</li> <li>• Configuration of FLOOD WATCH to disseminate selected information</li> <li>• Training in the daily operation of the system</li> </ul>
	<p><b>MIKE SHE</b> Integrated catchment modelling</p> <p>Dates 06-09 March 16-19 October</p>	<p>MIKE SHE is being used in real projects around the world to solve engineering problems across the full hydrologic spectrum - from detailed wetland studies to basin-wide water resource management studies to real-time flood forecasting. In this four-day, hands-on intensive course you will learn about the processes and linkages in integrated catchment modelling using MIKE SHE.</p>	<ul style="list-style-type: none"> <li>• Channel flow</li> <li>• Overland flow and infiltration</li> <li>• Unsaturated/saturated groundwater flow</li> <li>• Hydrological coupling</li> <li>• Calibration of integrated models</li> <li>• Integrated water budgets</li> <li>• Integrated water quality modelling</li> </ul>
	<p><b>MIKE BASIN</b> Introduction to river basin modelling</p> <p>Dates 30 January -1 February 16-19 April 19-22 June 18-21 September</p>	<p>This four-day, hands-on MIKE BASIN overview course aims at familiarising you with the MIKE BASIN concept. It will illustrate how you will be able to operate the software efficiently and create models for water allocation and reservoir operation projects.</p>	<ul style="list-style-type: none"> <li>• Introduction to MIKE BASIN</li> <li>• Introduction to GIS and model design</li> <li>• Creating models for water allocation projects</li> <li>• Reservoir and hydropower modelling</li> <li>• Result presentation and analysis</li> </ul>
	<p><b>MIKE 11 ECO Lab</b> 1D water quality and ecological modelling</p> <p>Dates September—dates to be finalised</p>	<p>This three-day, hands-on course teaches the fundamentals of ecological modelling and gives you an introduction to how to develop your own ecosystem models using the ECO Lab equation solver framework and integrate this into MIKE 11. Examples of applications examples applied for water quality are examined.</p>	<ul style="list-style-type: none"> <li>• Fundamentals of ecological modelling</li> <li>• Dialogue overview MIKE 11 ECO Lab</li> <li>• ECO Lab templates</li> <li>• MIKE 11 ECO Lab set-up and execution</li> <li>• Calibration and validation procedures</li> <li>• Interpretation of results</li> </ul>
GROUND WATER	<p><b>FEFLOW</b> Introduction to groundwater modelling</p> <p>Dates 06-08 August</p>	<p>This three-day, hands-on course provides you with an introduction to groundwater modelling using FEFLOW. On the basis of a case study you build a three-dimensional flow and transport model applying the most important programme functions, including pre-processing, simulation and result evaluation.</p>	<ul style="list-style-type: none"> <li>• FEFLOW and its graphical user interface</li> <li>• Creating 2D and 3D mesh geometries</li> <li>• Setting up flow models with confined and unconfined aquifers</li> <li>• Setting up transport models</li> <li>• Steady-state and transient models</li> <li>• Usage of GIS-/CAD- data interfaces</li> </ul>



***DHI believes that the best way to ensure the success of our products is to ensure the success of our clients! One of the ways we do this is through our training courses.***

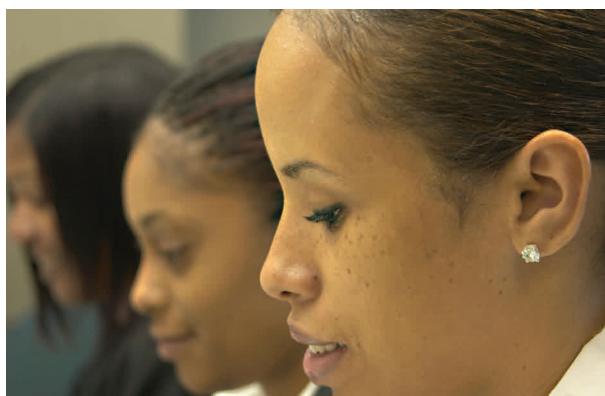
Our courses are held by our offices and technical support services worldwide, in your language and in your region!

**Our participants** represent governmental agencies, regional and local water bodies, research institutions and universities, professional bodies and engineering companies, urban water utilities, coastal and harbour authorities.

**Our courses cover** the areas of water resources, coasts and seas, cities, flooding and groundwater. Should the training course of your interest not be on the list, please feel free to contact us so that we can arrange for future courses or for a one-to-one course at your office.

**Our courses** are designed to introduce you to the application of our various products and modules. Relevant participants for these courses include both new and potential users as well as current users who need an update to our products in a guided way.

**Our tailored courses** within client organisations range from short, dedicated courses in selected topics to longer courses, in which you - with support from relevant DHI experts - are guided through practical applications using your own data.



#### **Venue and location**

Our courses are held at one of the following venues:

- DHI South Africa—Johannesburg Office
- CSIR, Pretoria - SA

#### **Language**

In general our courses are held in English. All training material is provided in English.

#### **Course Instructors**

All our instructors are certified by DHI.

#### **Our standard course prices**

3 days: R 4,000

4 days: R 5,000

(consecutive days—unless otherwise stated)

All prices are exclusive of 14 % VAT.

Course fees include access to PC with all required software for duration of the course, training material and exercises, training certificates, lunch and refreshments.

#### **Discounts**

10 % if valid Service Maintenance Agreement (SMA).

#### **Registration**

A minimum of 7 attendees is required for courses to proceed.

#### **Deadline for registration**

Three weeks before commencement of the course. DHI reserves the right to re-schedule training courses up to three weeks prior to the scheduled dates.

## **Further information**

Consult our global Course Calendar - it always tells you when, where and which MIKE courses are offered worldwide: [www.mikebydhi.com/training/globalcoursecalendar](http://www.mikebydhi.com/training/globalcoursecalendar)

Detailed course descriptions, course fees and registration forms please contact:

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