

Course Schedule 2010 - Denmark

	Dates	Product	Title
URBAN	19 - 20 January 27 - 28 April 26 - 27 October	MIKE URBAN CS	Introduction to modelling of storm water & wastewater collection systems * This course is held in Danish
	27 - 28 January 28 - 29 October	MIKE FLOOD (<i>Urban</i>)	Integrated 1D and 2D urban flood modelling
	2 - 3 March 28 - 29 September	MIKE URBAN WD	Introduction to modelling of urban water distribution systems
MARINE	8 February 9 September	MIKE 21 & MIKE 3 Flow Models	Introduction to hydrodynamic modelling
	9 February 10 September	MIKE 21 & MIKE 3 Transport Models	Introduction to transport modelling
	10-11 February 13-14 September	MIKE 21 SW	Spectral wave modelling
	10-11 February 2-3 September	LITPACK	Modelling long shore sediment transport and coastline evolution
	10-12 February 15-17 September	MIKE 21 & MIKE 3 ECO Lab	2D and 3D water quality and ecological modelling
	24-25 February 20-21 October	MIKE 21 BW	Wave disturbance modelling in ports
	6-7 April 13-14 September	MIKE 21 & MIKE 3 HD	Hydrodynamic modelling using 'classic' grid
	6-7 April 13-14 September	MIKE 21 & MIKE 3 FLOW MODEL FM	Hydrodynamic modelling using Flexible Mesh
	8-9 April 15-16 September	MIKE 21 & MIKE 3 TR FM, MT FM, PT FM	Fine sediment modelling using Flexible Mesh
	8-9 April 15-16 September	MIKE 21 ST FM	Sand transport modelling using Flexible Mesh
WATER RESOURCES	8-9 March	MIKE BASIN	Introduction to river basin modelling
	20-21 April 5-6 October	MIKE 11	Introduction to river and channel modelling
	22 April 7 October	MIKE 11 GIS	GIS based model development
	27-28 April 4-5 November	MIKE BASIN	Water quality modelling
	4-5 May 12-13 October	MIKE FLOOD (<i>River</i>)	Integrated 1D and 2D river flood modelling
	8-9 June 2-3 November	MIKE 11	Advanced hydrodynamic modelling
	19-21 October	MIKE SHE	Integrated catchment modelling

Venue & Location

Our courses are held at DHI in Hørsholm, Denmark.

Language

Our courses are, in general, held in English. Please contact us concerning your preference of language. All training material is provided in English.

Our standard course prices

1 day: € 530 / DKK 3,900

2 days: € 1,050 / DKK 7,800

3 days: € 1,330 / DKK 9,900 (consecutive days only)

Course fees include: training material, training certificates, lunch and refreshments.

Discounts

10 % if valid Service Maintenance Agreement (SMA).

33 % for 3rd and subsequent participants.

Registration

A minimum of 5 attendees is required for courses to proceed.

Deadline for registration: three weeks before commencement of course. DHI reserves the right to reschedule training courses up to three weeks prior to the scheduled dates.

Our courses cover the areas of water resources, marine and urban. 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 do a one-to-one course at your office.

Our short standard 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 short courses are modular and allow you to build your expertise so as to match the requirements of your job.

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.

Our training methodology is based upon *learning-by-doing* with a sound blend of speaker sessions and hands-on computer exercises.

GENERAL

COURSE DESCRIPTIONS

URBAN	<p>MIKE URBAN CS Introduction to modelling of storm water and wastewater collection systems Dates 19 - 20 January 27 - 28 April 26 - 27 October</p>	<p>A practical introduction to hydraulic modelling of wastewater and storm water 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 the participants to perform the basic functions of MIKE URBAN CS.</p>	<ul style="list-style-type: none"> Project setup including units, coordinate system, etc Data organisation, import/export of external data Numerical and graphical editing and quality control Dynamic simulation of rainfall/runoff and pipe flow Result analysis and visualisation
	<p>MIKE FLOOD (Urban) Integrated 1D and 2D urban flood modelling Dates 27 - 28 January 28 - 29 October</p>	<p>You will learn how to develop a 2D overland flow model by coupling of the 1D urban drainage model (MIKE URBAN) and 2D overland flow model (MIKE 21) to simulate the fully integrated flow dynamics between sewage/storm water systems and surface areas. The course also covers techniques to effectively process and present the modelling results for client presentation.</p>	<ul style="list-style-type: none"> Introduction to urban flooding Building urban bathymetries including roads and buildings Input data quality assurance Coupling MIKE URBAN CS and MIKE 21 Coupling 1D and 2D models with MIKE URBAN 2D Overland Flow feature Using GIS for model preparation and results
	<p>MIKE URBAN WD Introduction to modelling of urban water distribution systems Dates 2 - 3 March 28 - 29 September</p>	<p>A practical introduction to modelling of hydraulics and water quality in water distribution systems. You will learn how to set up and run MIKE URBAN WD and turn model outputs into professional presentation material. The course aims at enabling the participants to perform the basic functions of MIKE URBAN WD.</p>	<ul style="list-style-type: none"> Project setup, including units, coordinate system, etc Data organisation, import/export of external data Numerical and graphical editing and quality control Simulation of hydraulics and water quality - steady state and dynamic simulation of a selected period Result analysis and visualisation
MARINE	<p>MIKE 21 & MIKE 3 Flow Models Introduction to hydrodynamic modelling Dates 8 February 9 September</p>	<p>This 1-day course gives beginners and potential users of MIKE 21 and MIKE 3 an introduction to the fundamentals of flow modelling using models in 2D and 3D. The basic concepts in hydraulic modelling are introduced, and processes and factors that are decisive for when to apply a 3D approach are discussed.</p>	<ul style="list-style-type: none"> Selection of flow model Setting up simple hydrodynamic models Defining and managing boundary conditions Calibration and validation procedures Presentation and interpretation of results
	<p>MIKE 21 & MIKE 3 Transport Models Introduction to transport modelling Dates 9 February 10 September</p>	<p>Introduction to the basics of transport modelling. Processes and factors that are important in determining which transport model to use and selection between 2D and 3D modelling are discussed. The course covers introductions to the Transport model (TR), the Sand Transport model (ST), the Mud Transport model (MT) and the Particle Tracking model (PT).</p>	<ul style="list-style-type: none"> Overview of transport models How to select transport model Setting up wave and flow conditions Specifying sediments and calculating sediment transport Interpretation of results
	<p>MIKE 21 SW Spectral wave modelling Dates 10 - 11 February 13 - 14 September</p>	<p>This 2-day course provides a practical introduction to wave modelling using the MIKE Spectral Wave model. The course will help participants to predict and analyse wave climates in offshore and coastal areas.</p>	<ul style="list-style-type: none"> Application of MIKE 21 SW How to set up models based on flexible mesh (unstructured grid) Decision of spectral formulation Calibration techniques and model validation Interpretation of results
	<p>LITPACK Modelling longshore sediment transport and coastline evolution Dates 10 - 11 February 2 - 3 September</p>	<p>An introduction to the use of LITPACK in the modelling of longshore sediment transport and coastline evolution along quasi-uniform coastlines. LITDRIFT and LITLINE are applied to illustrate the use within coastal zone management and planning.</p>	<ul style="list-style-type: none"> Basic assumptions in LITPACK Concept of morphological baseline Setting up LITDRIFT and LITLINE models Calibration of models Result viewing and presentation Introduction to LITSTP, LITTREN, LITPROF
	<p>MIKE 21 & MIKE 3 ECO Lab 2D and 3D water quality and ecological modelling Dates 10 - 12 February 15 - 17 September</p>	<p>You will learn about the fundamentals of ecological modelling and be introduced to how to develop your own ecosystem models using the ECO Lab editor and integrate this to MIKE 21/3 ECO Lab. The course provides you with a good basis for using MIKE 21/3 ECO Lab to obtain accurate spatial predictions of aquatic ecosystem response.</p>	<ul style="list-style-type: none"> Fundamentals of ecological modelling Introduction to ECO Lab Introduction to existing ECO Lab templates How to set up the MIKE 21/3 ECO Lab FM model Model calibration and validation Interpretation of results
	<p>MIKE 21 BW Wave disturbance modelling in ports Dates 24 - 25 February 20 - 21 October</p>	<p>This 2-day course provides an introduction to wave disturbance modelling in ports and by structures using the MIKE Boussinesq Wave model. The course will help you predict and analyse wave conditions in ports and behind structures where accurate assessment of wave impact is of utmost importance.</p>	<ul style="list-style-type: none"> Application of MIKE 21 BW How to set up models based on rectilinear grid Creating porosity and sponge layer maps Calibration techniques and model validation Interpretation of results
	<p>MIKE 21 & MIKE 3 HD Hydrodynamic modelling using 'classic' grid Dates 6 - 7 April 13 - 14 September</p>	<p>This 2-day course provides an introduction to the basics of flow modelling and how to get started with 2D and 3D models. The course aims at enabling the participant to set up and run flow simulations with MIKE 21 and MIKE 3 HD 'classic' versions.</p>	<ul style="list-style-type: none"> Selection of geographical coordinate system and bathymetry digitization (grid) Data organisation, import, editing and quality control Setting up 2D & 3D hydrodynamic models Managing boundary conditions Calibration and validation Interpretation of results

MARINE cont.	MIKE 21 & MIKE 3 FLOW MODEL FM Hydrodynamic modelling using Flexible Mesh Dates 6 - 7 April 13 - 14 September	This 2-day course provides a practical introduction to the basics of flow modelling and how to get started with 2D and 3D models. The course aims at enabling the participant to set up and run flow simulations with MIKE 21 and MIKE 3 Flow Model FM with the advanced data preparation and editing facilities and to turn model outputs into professional presentation material.	<ul style="list-style-type: none"> • Selection of geographical coordinate system and bathymetry digitisation (mesh) • Data organisation, import, editing and quality control • Fundamentals of 2D and 3D flow modelling • Setting up simple hydrodynamic models • Managing boundary conditions • Calibration and validation procedures • Analyses of model input and output • Interpretation of results and visualisation
	MIKE 21 & MIKE 3 TR FM, MT FM, PT FM Fine sediment modelling using Flexible Mesh Dates 8 - 9 April 15 - 16 September	This 2-day course provides a practical introduction to the fundamentals of fine sediment modelling using MIKE 21 and MIKE 3 modules. The course aims at enabling the participant to set up and run simulations using MIKE 21 TR FM, MIKE 21 MT FM and MIKE 21 PT FM.	<ul style="list-style-type: none"> • Fundamentals of fine sediment • Transport modelling • Issues to consider when selecting model • Application of fine sediment transport models • Setting up wave and flow conditions • Specifying particles and sediments • Calculating sediment transport • Transport of tracers
	MIKE 21 ST FM Sand transport using Flexible Mesh Dates 8 - 9 April 15 - 16 September	This 2-day course provides a practical introduction to sand transport modelling and the modelling of morphological changes using a coupled setup with flow and wave models. The course aims at enabling the participant to set up and run sand transport modelling simulations with MIKE 21 ST FM.	<ul style="list-style-type: none"> • Fundamentals of sand transport modelling • Application of MIKE 21 ST FM • Setting up wave and flow conditions • Specifying sand properties • Calculating sand transport
WATER RESOURCES	MIKE 11 Introduction to river and channel modelling Dates 20 - 21 April 5 - 6 October	An introduction course to 1D river modelling. Focus will be on knowledge of the basic features of MIKE 11 to enable you to set up and run simple river models with MIKE 11 and evaluate their results.	<ul style="list-style-type: none"> • MIKE 11 modular structure • MIKE 11 graphical user interface (GUI) • Schematisation and application of simple river models • Model stability • Modelling simple hydraulic structures
	MIKE 11 GIS GIS based model development Date 22 April 7 October	A 1-day introduction course to the latest MIKE 11 GIS package (in ArcMap), which provides a range of efficient tools and features primarily for utilising GIS in the schematisation and preparation of MIKE 11 river model input files.	<ul style="list-style-type: none"> • Schematisation of river model features • Extraction of topographical data from DEM • Import of existing river model data • Export of model input files
	MIKE SHE Integrated catchment modelling Dates 19 - 21 October	Many catchment management problems require modelling tools that are beyond the capabilities of traditional groundwater models. In this intensive course you will learn about the processes and linkages in integrated catchment modelling using MIKE SHE .	<ul style="list-style-type: none"> • Channel flow • Overland flow and infiltration • Unsaturated/saturated groundwater flow • Hydrological coupling • Calibration of integrated models • Integrated water budgets and integrated water quality modelling
	MIKE BASIN River basin modelling Dates 8 - 9 March	This 2-day MIKE BASIN overview course is for professionals working with water resources planning and management. The course aims at familiarising the participants with MIKE BASIN and be able to operate the software efficiently and create models for water allocation and reservoir operation projects.	<ul style="list-style-type: none"> • Introduction to the MIKE BASIN modelling framework • Introduction to GIS and model design • Creating models for water allocation projects • Reservoir operation and hydropower modelling • Result presentation and analysis
	MIKE BASIN Water quality modelling Dates 27 - 28 April 4 - 5 November	The course aims at familiarising the participants with MIKE BASIN and its WQ module and be able to operate the software efficiently and create models for non-point and point pollution load assessments and simple water quality modelling in rivers.	<ul style="list-style-type: none"> • Introduction to the MIKE BASIN modelling framework • Introduction to GIS and model design • Non-point load assessment • River water quality modelling • Result presentation and analysis
	MIKE 11 Advanced hydrodynamic modelling Dates 8 - 9 June 2 - 3 November	This course is a natural extension to the introductory course. It aims at giving you a thorough insight in modelling more complex river, canal and reservoir systems including hydraulic structures and coupling to Rainfall Runoff models.	<ul style="list-style-type: none"> • Setup efficient and reliable MIKE 11 models • Applying static and operational structures • Model calibration • Introduction to rainfall/runoff processes in conjunction with river modelling
	MIKE FLOOD (River) Integrated 1D and 2D river flood modelling Dates 4 - 5 May 12 - 13 October	You will learn how to model integrated river and flood plain dynamics using MIKE FLOOD. Focus will be on defining efficient coupled 1D and 2D models with emphasis on data requirements, optimal model schematisation and model stability.	<ul style="list-style-type: none"> • Introduction to 1D and 2D flow modelling components • Topographic data handling • Fine scale structures in coarse grids • Floodplain modelling and mapping • Results viewing and presentation



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.

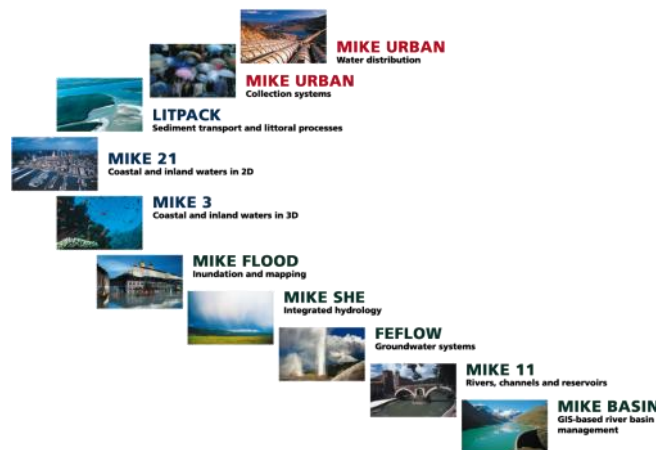
Our courses have been designed to assist your company or organisation to build expertise and maximise productivity. The courses introduce new users to MIKE by DHI software and provide an opportunity for existing or even experienced users to upgrade their skills. Learn practical methods for problem solving, using state-of-the-art technology based on DHI's more than 30 years of advanced research and development.



Every year hundreds of MIKE training courses are held by our offices and technical support services worldwide: Argentina, Australia, Austria, Bangladesh, Brazil, Bulgaria, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, India, Italy, Japan, Malaysia, Mexico, New Zealand, Norway, Poland, Peru, Poland, Portugal, Romania, Russia, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Thailand, Vietnam, United Arab Emirates, the United Kingdom and USA.



DHI also offers tailor made courses within client organisations. These 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. For further details please contact us.



Consult our global Course Calendar on www.dhigroup.com.
It always tells you when, where and which courses are offered worldwide



For further information, detailed course brochures and registration forms please contact:

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DHI is a world leader within software for the simulation of water and environmental issues. MIKE by DHI is the brand name covering all our software products, which we sell directly from Denmark and through DHI offices in more than 29 countries.

The MIKE products help thousands of users develop better local solutions to global problems such as adaptation to climate change, flooding, water scarcity, design of renewable energy systems, safe and healthy water supply and sanitation.

Excellent tools turn the hardest job into a joy! However, even the best tools may reach their limit, and that is precisely when you find out what you have paid for!

With MIKE Software you have not just purchased a tool - you have stepped into a unique technical support system with local support in more parts of the world than any similar product family.

Every year thousands of users - experienced, new and potential - attend our software courses and our regional and national software conferences, user group meetings and round-tables worldwide. Our events offer an excellent opportunity to exchange experiences and ideas with fellow users and colleagues in an informal spirit - and you are learning at the same time!

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