IHE Delft is the largest international graduate water education facility in the world and is based in Delft, the Netherlands. Since 1957, the Institute has provided water education and training to 23,000 professionals from over 190 countries, the vast majority from Africa, Asia and Latin America. Also, numerous research and institutional strengthening projects are carried out in partnership to strengthen capacity in the water sector worldwide.

The Sustainable Development Goals (SDGs) are important and ambitious goals that guide us at IHE Delft in our work to address water and development challenges. As a water education institute developing capacity in water-related topics, we particularly focus on SDG 6, ‘Clean water and sanitation’. However, our work is also important for other goals: water cannot be seen in isolation and is a precondition for achieving other goals. Therefore, together with our partners, we contribute to many SDGs including zero hunger, gender equality, affordable and clean energy, life on land, life below water, and sustainable cities and communities. As we approach 2030, IHE Delft will use an inter- and transdisciplinary approach to further strengthen the connections between our education, research and project activities.
Join us to help resolve global and local water challenges

Business as usual won’t bring services to the 2 billion people who today lack access to clean water and sanitation by 2030, as the world committed to do in the United Nations Sustainable Development Goal No. 6. We need to work smarter and harder – and faster. Do you want to join us in this effort?

In March 2023, UN Member States will review progress toward fulfilling SDG 6 during the UN Water Conference. The meeting comes at a critical time considering the need for acceleration. The conference and its preparatory process aim to be inclusive, cross-sectoral and action-oriented – principles that can be applied one-on-one to IHE Delft’s educational programmes.

Are you keen to use your profession to make a direct impact on resolving water-related challenges? Our MSc in Water and Sustainable Development is made for you. If you prefer a career in research or academia, consider our longer Research MSc in Water and Sustainable Development. Read this guide to learn about the curricula and more – I hope to welcome you in October 2023.

Are you a mid-career water professional seeking to sharpen your skills in a specific field? Take a look at our new on-campus short courses: they offer high-quality continued learning – and opportunities to connect with peers from around the world. We also offer online courses, some of which are free.

Partnerships are key to everything we do at IHE Delft. Together with our partners, we continuously improve our educational programmes and delivery methods: online, on-campus and blended, to meet the needs of water professionals worldwide.

Why IHE Delft?
- It’s a global institute with global and local impact. As an institute under the auspices of UNESCO we are member of the UN-Water network, and as such, we are involved in high-level discussions on global water problems. At the same time, we work with partners to apply solutions locally.
- Our world-class staff and guest lecturers have – like our students – diverse backgrounds, both in terms of origin and profession. This creates a vibrant peer-to-peer learning environment in which real work is used as practical examples.
- IHE Delft is small and friendly, with a big reputation. Our alumni network of water professionals boasts more than 23,000 members – and it keeps growing with each graduate. Each member of our alumni family is a lifelong partner to the Institute.

In short, if you want to help solve global water problems while enhancing your career prospects, IHE Delft is the place for you. Join us!

Professor Eddy Moors, Rector

10 Reasons to Study at IHE Delft

- Actionable, interdisciplinary programmes tailored for you
- All programmes work towards achieving SDGs
- 65 years of experience in graduate water education
- Personal guidance and mentoring
- Internationally renowned lecturers and professors
- A truly international environment
- The largest global water alumni network
- Close ties to UN system
- Gateway to Dutch water know-how
- Live and study in a friendly, vibrant city in the heart of Europe
A home in the heart of Europe

Delft is known for its historic town centre with canals, Delft Blue pottery, painter Johannes Vermeer and scientist Antony van Leeuwenhoek and its association with the royal House of Orange-Nassau.

Since Delft is a university city, there are plenty of cultural events and an abundance of cafes and restaurants that cater to every taste and make time spent away from your studies enjoyable and relaxing.

Safe cycle paths throughout Delft and the Netherlands provide recreation, exercise and a free means of commuting to IHE Delft from your student accommodation – all of the housing we offer is close to the Institute.

Water has always played an important role in both the Netherlands’ and Delft’s history and continues to do so today. Therefore, it is no surprise that many science and technology organizations related to water have chosen Delft as their home base. IHE Delft maintains close working relationships with various Delft-based research and education institutes, such as the Delft University of Technology, Deltares and the Delfland Water Board.

Delft is well connected to the efficient Dutch public transport system, making The Hague, Rotterdam, Schiphol International Airport and Amsterdam easily accessible. It is a great location to start exploring other places of interest, both within the Netherlands and Europe.
A Network for Life

Many alumni say ‘it transformed my life’ when describing their experience of studying at IHE Delft. They talk about learning from each other and the Institute’s world-renowned teaching staff. They say they loved engaging with peers and staff from other cultures and disciplines, and they note with satisfaction that they built a network for life - the largest water professional network in the world.

Make IHE Delft your network

IHE Delft acts as a hub for partnerships and networks across the globe, linking global knowledge to local sector agendas. The Institute collaborates with a wide range of public and private partners, comprising a wide range of fields and technical cooperation in human and institutional capacity building. These partners, at the international, United Nations, EU and national levels, include education and research institutes, knowledge centres, the (Dutch) Water Sector, funding agencies, non-governmental and governmental organizations. Through partnerships, the Institute’s impact expands.

The Institute maintains close working relationships with regional and local networks to facilitate the transfer of scientific and technical expertise, and to strengthen the capacity of water professionals and institutions. These networks are often thriving professional communities and encourage joint research, knowledge sharing and the development of sustainable water solutions.

As a student, you profit from the Institute’s professional contacts. When studying at IHE Delft, you will learn from leading figures from the international water arena. The global context, including dialogues and targets such as the Sustainable Development Goals, provides a framework for your study.

Today, several ministers, heads of water-related institutions and top scientists around the globe are IHE Delft graduates.

Alumni network

After graduation, you will be part of the largest network of water professionals in the world. IHE Delft will facilitate the communication between you, your former classmates, and the Institute. E-newsletters keep alumni updated on news about the Institute and the water sector. You are encouraged to join the IHE Delft Alumni group in your country, where you can meet fellow alumni, network and enjoy professional and social activities.

With an IHE Delft degree you will have taken a major step in your professional career. Many alumni reach prominent positions in which strategic, managerial, policy and decision-making components become major responsibilities of their functions. To help you keep your skills and knowledge refreshed and to stay up to date with changing professional demands, IHE Delft offers alumni a lifelong learning programme. This includes online and face-to-face courses and seminars on relevant themes. In addition, alumni qualify for discounts on the tuition fee for IHE Delft short and online courses as well as publications.

Alumni per country

- 1-49
- 50-149
- 150-299
- 300+

Today, several ministers, heads of water-related institutions and top scientists around the globe are IHE Delft graduates.
Everyone who decides to study at IHE Delft has their individual motivation, but all are united by a wish to contribute to solving water challenges in some way. How you achieve this and meet your career goals will depend on your disciplinary background and professional interests. Our two unique MSc Programmes can help you get there.

MSc Programmes

MSc in Water and Sustainable Development

The (68 EC) MSc in Water and Sustainable Development offers flexibility. You can focus on your chosen subject within one of the four thematic tracks: Water Hazards, Risks and Climate; Water and Health; Water, Food and Energy; and Water Resources and Ecosystem Health. You can study your track from different perspectives (profiles): Engineering and Hydrology; Governance and Management; Environment; Digital Innovation and Hydroinformatics. Alternatively, you can combine profiles from different tracks to build a customized programme that meets your specific interest and needs.

You will write a thesis to complete your MSc – a mentor will help you develop the proposal and support you through the writing process. Interwoven throughout the programmes is a series of professional skills sessions, such as science communication, group dynamics and leadership, to further support you in your career development.

Research MSc in Water and Sustainable Development

If you are interested in a career in research or academia, consider the (120 EC) Research MSc in Water and Sustainable Development. It follows a trajectory similar to the (68 EC) MSc in Water and Sustainable Development for the first year, with a variation in course work to emphasise accumulating research skills. In the second year, you will focus on conducting your research, with additional training in science philosophy, research techniques and academic writing, amongst other relevant topics.

Graduate education at IHE Delft is science-based and highly relevant for those interested in water and development.

KEY FEATURES

Customized study trajectories
The programmes offer maximum flexibility to customize study trajectories to individual learning needs and career opportunities.

Active coaching
Coaches support students in building their customized programme and provide study advice throughout the programme.

Interdisciplinary
Learning activities within the programmes encourage multidisciplinary collaborations and engage students with interdisciplinary approaches.

Problem-orientated curricula
The programmes offer problem-orientated curricula based on actual water-related challenges that engage students in critical and innovative thinking, to be able to handle future challenges.

Professional skills
The programmes help students develop the (inter)personal and cognitive competences they need to grow into well-rounded professionals who are confident in communicating, persuading and providing leadership.

Lifelong learning
Continued learning after graduation is encouraged through online courses, webinars, refresher courses and other activities provided for alumni.

www.un-ihe.org/master
MSc in Water and Sustainable Development

If you seek a science-based MSc degree that is anchored in professional practice, the MSc in Water and Sustainable Development is ideal for you.

This programme targets early and mid-career water professionals with a recognized Bachelor’s degree who want to gain knowledge and skills to tackle water challenges while enhancing their career opportunities within the water sector or related organizations.

The one-year duration keeps the time away from work and home to a minimum. The programme allows you to stay connected with the sector and/or your employer through the option of co-designing the thesis topic. The programme’s curriculum consists of common parts, thematic track modules and a thesis research part. The contents of the common parts are the same for all students, whereas the thematic track modules and MSc thesis research are part of a customized learning trajectory based on your personal learning ambitions.

Common parts
The MSc Programme is oriented toward professional practice. Besides disciplinary and interdisciplinary knowledge of the water field, the programme emphasises the development of transferable skills, academic as well as non-academic. The track modules are interspersed with so-called mixed weeks, in which one or two days are reserved for exams, half a day for portfolio development and coaching, with the remaining days are dedicated to skills training. In the interdisciplinary project (module 8), you make a preliminary analysis, from an interdisciplinary perspective, of a water-related problem, work in teams to formulate possible solutions and propose measures to address the identified problems, threats and opportunities.

Academic calendar
Master of Science in Water and Sustainable Development

Thematic track modules
After the joint start in module 1, you follow six modules based on your personal learning objectives and academic background. These modules are grouped in four closely connected and partly overlapping thematic areas. The broad thematic areas are based on societal water challenges and build on the available teaching and research expertise within IHE Delft. Within the thematic track, you can choose one of five disciplinary profiles.

Sundus Dawood Al-Ogaidi, MSc Student, Iraq

“I strongly believe in the need for better governance, long-term planning and strategic thinking to achieve the SDGs. This requires building capacity of water professionals like me who understand the local context and can empathise with its people.”
The Research MSc in Water and Sustainable Development will prepare you for a career in research, academia or to pursue a PhD.

This programme targets early and mid-career water professionals with a recognized Bachelor’s degree who are primarily interested in a career in research or academia and/or would like to pursue a PhD in a water-related area.

During the course of the two-year programme, you will develop academic and cognitive competences to create new knowledge and solutions needed to address complex water challenges in inclusive and sustainable ways.

Because most water problems transcend a single discipline, the programme adopts a multi- and interdisciplinary approach, whilst building a depth of knowledge in your own field of interest. Thus, to prepare you for a career in research or a PhD, solid knowledge and expertise in your own field of study is combined with academic and non-academic skills development. You will enhance your ability to think critically, to develop and use research methodology, to analyse data, to collaborate with key stakeholders and professionals from other fields, to communicate, and to work independently.

The first part of study follows a similar trajectory to the one-year MSc, with a variation in course work during the mixed weeks, to emphasise research skills. In the second part, you will focus on your research, with additional training in science philosophy, research techniques and academic writing, amongst other relevant topics.

Thesis research

You develop a thesis proposal that imbeds your topic in scientific debates and features a succinct research question and analytical framework, as well as scientific justification and innovative research methods.

After successfully defending your thesis proposal, you conduct the thesis research, for example through lab experiments or modelling using existing databases. The research can also include fieldwork in the Netherlands or abroad – in your home country, or at an IHE Delft partner as part of an existing project or collaborative activity. During the research phase, you will meet your supervisory team regularly. The output of the research can be in the form of a Master thesis (dissertation), or a paper-based output. The thesis research will be presented and defended by the student in a public session.
What will I learn?

You will examine water-related linkages between food and low-carbon energy production and critically assess possible trade-offs and synergies. You will consider both integrated and disciplinary approaches for land and water management in the broader context of global and local land and water reforms. You will learn how these approaches relate to technological and economic opportunities, and how to safeguard the environment and social justice while using them. Depending on the profile you choose, you will learn to develop appropriate governance mechanisms informed by historic, social and institutional analysis; review how digital innovations such as remote sensing and artificial intelligence can support sustainable water engineering and management; critically analyse processes of rural transformation in food and energy production; plan, design, operate and maintain irrigation infrastructure for food security and resilient livelihoods; or develop and integrate new and existing forms of water-based energy, including closing resource loops in urban and rural settings, amongst many other subjects. This track targets students who want to help transform our society into one where water, food and energy security is achieved with more sustainable and equitable practices.

Is it right for me?

Whether your goal is to excel as an irrigation or energy engineer, to work in policy development, as a computer modeller for water or energy use or to pursue many other careers in the field of water, food and energy, this track will give you a head start.

Helped by your coach, you choose a disciplinary profile (see diagram below), allowing you to focus on a specific aspect of the track or to mix and match (also across tracks), to give you a broader view of the topic.

Check our website to see a list of eligible bachelor degrees and the recommended preparatory courses.

Food, energy and water security is one of the biggest challenges, now and in the future – in all corners of the world. We need experts from all disciplines to make a lasting impact at local and global scales.”

Annelieke Duker
Lecturer/Researcher in Irrigation Management
Water, Food and Energy track lead

Module options are subject to change, please check the website for the latest information.
**What will I learn?**

There are three main components to this track: describing and quantifying spatiotemporal climate risks; developing fit-for-purpose adaptation pathways and associated measures and defining appropriate approaches in governance, engineering and information. Depending on your interest, you might focus on cities, river basins, coastal or dryland areas, that all come with their own particular climate challenges. Depending which profile you choose, amongst a wide range of other topics, you will learn about water sensitive cities and sustainable urban drainage; climate adaptation politics, water conflicts and financing; drought and flood management; artificial intelligence and decisions support systems or about sea level rise and coastal adaptation in rapidly urbanizing deltas.

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**Is it right for me?**

Whether your dream is to become a chief resilience officer, an adaptation expert in a water agency or consultancy, an expert on nature-based solutions, a policy advisor, a risk modeller or a designer of participatory adaptation approaches, this track will give you a head start.

Helped by your coach, you choose a disciplinary profile (see diagram below), allowing you to focus on a specific aspect of the track or to mix and match (also across tracks), to give you a broader view of the topic.

Check our website to see a list of eligible bachelor degrees and the recommended preparatory courses.

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**Climate change dominates the headlines. To adapt, you need to understand the scale and the characteristics of the regions and people affected. Join us in this important task.**
**Module 5**

**Water and Health**

Safe water and sanitation are the primary drivers of public and environmental health and are human rights. Improving service levels to provide safely managed drinking water and sanitation, such as regulated piped water and a complete sanitation service chain, can dramatically improve public wellbeing.

**What will I learn?**

This track engages with the direct and indirect linkages between water and health. You will learn how drinking water provision and sewered and non-sewered sanitation implementation are related to human health, urbanization, the environment, climate change, human behaviour and (protracted) crises. Depending on the disciplinary profile you choose, you will learn to evaluate, develop, design, and manage sanitation or drinking water provision, including treatment and re-use, transport and distribution, or learn more about the broader technological, socio-economic and public health issues, including management and governance.

**Is it right for me?**

If you want to become a drinking water expert, or an expert in sewered and non-sewered sanitation, a hygiene or reuse expert, this track will be your springboard. Depending on the profile you choose, you can work for humanitarian organizations, consultancy firms, water boards, drinking water companies, environment agencies, water inspectorates, or government bodies.

Helped by your coach, you choose a disciplinary profile (see diagram below) that allows you to focus on a specific aspect of the track or to mix and match (also across tracks), to give you a broader view of the topic.

Check our website to see a list of eligible bachelor degrees and the recommended preparatory courses.

“*The statistics are grim, yet huge progress has been made in improving health through clean water and sanitation provision.*”

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Tineke Hooijmans
Associate Professor of Sanitary Engineering
Water and Health track lead

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Module options are subject to change, please check the website for the latest information.
What will I learn?

You will learn about the movement of water through the landscape and how to apply this knowledge to support sustainable management of river basins. You will study the basic concepts of, and interlinkages in, the biosphere, the role of biodiversity, the hydrological cycle, and their relationship with ecosystem health and how this underpins human health and wellbeing. Depending on the profile you choose, you will learn about measuring and monitoring, data analysis, GIS and remote sensing, simulation modelling, the value of open access data and software, river basin development and environmental management policy processes, and methods for planning and managing water and other natural resources. Ultimately you will be able to apply your expertise to support sustainable Water Resources and Ecosystem Health in an interdisciplinary setting.

Is it right for me?

If your ambition is to become a water resources or river basin manager, hydrologist, aquatic ecosystem scientist, modeller or GIS and Remote Sensing expert, or pursue a related career, studying this track will be your springboard.

Helped by your coach, you choose a disciplinary profile (see diagram below), that allows you to focus on a specific aspect of the track or to mix and match (also across tracks), to give you a broader view of the topic.

Check our website to see a list of eligible bachelor degrees and the recommended preparatory courses.

“Water doesn’t just come from a tap: healthy ecosystems provide the resources society needs to survive.”

Graham Jewitt
Professor of Hydrology
Water Resources and Ecosystem Health track lead

Globally, ecosystems and the water resources they support are in perilous decline. Maintaining healthy ecosystems is the basis for delivering resources equitably and efficiently to support people’s health and well-being and is the basis for sustainability.
Having a background in soil science, my interest in water intensified while working at a plantation research institute. I am excited to explore new ways to develop sustainable water management for plantation industries.”

Andre Dani Mawardhi
MSc Student from Indonesia

Admission to the MSc programme requires a Bachelor degree at level B/B+ (US system) or upper 2nd (British system) in an appropriate field which has been awarded by a university of recognised standing. The admission procedure also includes an English language proficiency check. Visit our website to check the exact requirements for the MSc Programmes.

Entry Requirements

Admission to the MSc programme requires a Bachelor degree at level B/B+ (US system) or upper 2nd (British system) in an appropriate field which has been awarded by a university of recognised standing. The admission procedure also includes an English language proficiency check. Visit our website to check the exact requirements for the MSc Programmes.

In consultation with their coach, students may choose one of the predefined profiles within a thematic track or compose their own tailor-made multi-disciplinary trajectory within or across the thematic tracks. The examples below demonstrate how it can work.

Sajid has a background in civil engineering and wishes to explore the linkages between drainage and sewerage, treatment processes and technologies and the planning, management including financing of treatment plants. This interdisciplinary path within the Water and Health track prepares him to formulate and critically assess inclusive and sustainable management of waste water treatment interventions.

Juan has a background in hydrology and is interested in floods in urban areas, hydroinformatics tools and design of climate adaptation measures. He could combine modules of the Engineering and Digital Innovation and Hydroinformatics profiles within the Water Hazards, Risks and Climate track.

If you have a background in environmental sciences and agriculture and are interested in developing and implementing sustainable water resources management solutions with a focus on ecosystems which produce food, you could follow the Environment profile within the Water Resources and Ecosystem Health and Water, Food and Energy tracks.

Rose has a background in public administra- tion and wishes to discover pathways for more equitable and sustainable agricultural and energy policies. This Water Governance and Management profile within the Water, Food and Energy track prepares her to contribute to socially inclusive and environmentally sustainable strategies related to agriculture and/or low-carbon energy.

Sofina has a background in environmental sciences and agriculture and is interested in developing and implementing sustainable water resources management solutions with a focus on ecosystems which produce food. She could follow the Environment profile within the Water Resources and Ecosystem Health and Water, Food and Energy tracks.
PhD Programme

The PhD programme is at the core of water-related research at IHE Delft. PhD candidates undertake scientific research, often with conclusions that directly relate to water challenges in their own country or region. At IHE Delft, close to 100 PhD candidates from around the world are brought together to participate in problem-focused, solution-orientated research into development issues, resulting in an inspiring research environment.

PhD Programme

Conducting research at IHE Delft is a unique experience that allows you to work together with other researchers in an international and multi-disciplinary environment. Your research will provide a firm academic foundation for you to help solve the global challenges of sustainable water supply, quality and governance. The PhD research of IHE Delft crosses the spectrum from engineering, information systems, habitat quality and the social and political realities that affect the use and abuse of water.

All PhD candidates work within specific Research Groups, but are encouraged to collaborate internally and externally to produce high-quality results within IHE Delft’s research themes. Work often is conducted within larger groupings and can link to the research topics that are a requirement of the institute's MSc programme and/or embedded in larger multidisciplinary projects. You will often do research in collaboration with the Institute’s extensive network of research institutions, governmental and private sector partners throughout the world. Research includes time in Delft and often also in the home country of the research candidates or elsewhere abroad. This directly supports the mission of the Institute and the agenda of the UN Sustainable Development Goals.

All PhD candidates are registered both with the IHE Delft Graduate School and with a partner university. This is normally a Dutch university with the legal authority to award the degree of PhD, although we also have some joint PhD programmes as part of funded networks of research. The time span of a PhD programme is usually planned for four years. The degrees are fully recognised in all parts of the world.

IHE Delft Graduate School in Water and Development

Sustainable water use is frequently characterised by complex, so-called ‘wicked’, problems where traditional assumptions of knowledge, causality and predictability may not apply. The urgent need to better connect between science, policy and society makes new demands on PhD graduates, who are increasingly expected to be experts in their own disciplines while also being capable of placing that knowledge in a wider understanding of societal needs.

IHE Delft supports PhD level education that is targeted to water related problems, not only in the global south and countries in transition, but in an increasingly globalised world.

IHE Delft Graduate School in Water and Development

In 2015, IHE Delft established the Graduate School in Water and Development to create a hub for a vibrant and intellectually exciting research and development environment at the heart of the Institute. The Graduate School aims to develop a stimulating research environment for PhD candidates and the Institute’s staff. PhD candidates produce the majority of the research output of the Institute, and future developments are to further support academic quality and relevance in meeting the serious challenges of sustainable water use. Research activities are supported by an individual training plan that build competencies directly related to the specific research programme, as well as wider interactive and awareness skills that are needed in a professional environment. Each PhD candidate develops a Training and Supervision Plan (TSP) that builds verified doctoral education credits.

Sustainable water use is frequently characterised by complex, so-called ‘wicked’, problems where traditional assumptions of knowledge, causality and predictability may not apply.

IHE Delft is a partner member of SENSE (Research School for Socio-Economic and Natural Sciences of the Environment), a national research school in the Netherlands that connects more than 30 universities and research institutes. SENSE aims to educate and train PhD candidates in disciplinary and multidisciplinary environmental issues, to promote scientific research on environmental change, and to support society and policy makers with independent and scientifically based expert advice.
Online and Short Courses

IHE Delft aims to make water education accessible to as many students and professionals as possible. The Institute therefore offers online and on-campus short courses, tailor-made training, a diploma programme and open courseware on a wide array of topics.

Online Courses

IHE Delft offers high quality online courses in many important water sector topics. The online courses are beneficial to professionals working in public and private institutions, NGOs, and academic institutions, and are ideal for professionals who want to upgrade their skills from their homes or offices. The total study load of a typical online course load is 140 hours, so for example, a four-month course takes around 8 hours of work per week. Lecturing staff offer intensive guidance during the online courses, and there are many opportunities to get feedback from and interact with fellow participants. The web-based Moodle eCampus is used to disseminate training material and for communication. It contains learning tools such as presentations, videos featuring case studies from various countries, interviews with experts, quizzes and audio material, as well as a discussion area where participants and lecturers can interact.

For a list of online courses in 2023, see page 28.

On-Campus Short Courses

IHE Delft runs a wide range of short, intensive and highly specialized courses that aim to help mid-career and senior experts upgrade and refresh their knowledge and skill. These two- to three-week courses suit professionals or groups of professionals with a specific area of interest and limited time. Their focus and content vary from specialized and technical matters to challenges and approaches in management. Teaching methods include lectures, individual or group exercises in the classroom, at the computer, or in the laboratory. Fieldwork, excursions and field visits to relevant institutions are often part of short courses, allowing the participants to experience practical examples of the theory offered. Case studies, role-play and workshops provides for interactive and peer-to-peer learning.

For a list of short courses in 2023, see page 29.

Tailor-Made Training

Tailor-made courses are designed for clients whose staff require training in specific topics or seek to develop a common knowledge-base to address future challenges. The focus of the courses can be technical, managerial, strategic or operational, depending on the client’s priorities. The training can be organized for groups of various sizes, from one or multiple organizations, sectors or regions. The training can vary in length and depth, ranging from a course lasting several days, to a tailored MSc programme in which regular components are mixed with case studies and modules requested by the client. Training can be delivered online, on-site and/or at IHE Delft. Training techniques include lectures, workshops, role-plays, case studies and study tours to project sites in Europe or in other regions where the training takes place.

For advice on how IHE Delft could be of service to your organization, please see the IHE Delft website or email tmat@un-ihe.org.

Graduate Professional Diploma Programme

The Graduate Professional Diploma Programme (GPDP) disseminates relevant knowledge and know-how to professionals who do not have the means or time to pursue a full-time Master’s course in that subject, or who already have an MSc Degree in a related field and wish to specialize in another. In the programme you will follow a sequence of four to five online courses. To ensure that the programme fits your personal circumstances, you select the courses of interest and a personal study plan will be designed in collaboration with a study advisor. The total duration of the programme depends on this study plan and varies between 1.5 to a maximum of 4.5 years.

For information on these tracks and courses, see page 27.

Open Courseware

IHE Delft provides free online educational materials, including recorded lectures and downloadable materials such as course notes, exercises, tools and public domain software on a wide variety of topics.

For a list of open courseware courses, see page 29.
Joint MSc Programmes

Limnology and Wetland Management is a joint-degree MSc programme offered by IHE Delft, University of Natural Resources and Life Sciences (BOKU) in Austria and Egerton University (EGU) in Kenya. Students start at BOKU, where they have four months of course work prior to coming to IHE Delft. They participate in IHE Delft’s modules 5 to 8, before moving to Egerton University for course and fieldwork and thesis research. www.un-ihe.org/lwm

Water Cooperation and Diplomacy is a multiple-degree joint MSc programme offered by IHE Delft, University of Peace (UPeace) in Costa Rica and Oregon State University (OSU) in the United States of America. Students start at UPeace, where they have four months of course work prior to coming to IHE Delft. They participate in IHE Delft’s modules 3 to 7, and do an extra module on Interdisciplinary Research, before moving to OSU for course and fieldwork and thesis research. www.waterdiplomacymaster.org

Water Science and Engineering in Hydropower Development is a double-degree joint MSc programme offered by IHE Delft and University of Kuala Lumpur (UniKL) in Malaysia. Students start at IHE Delft and complete all modules up to and including module 8, and do an extra online module on Environmental Flows, before moving to UniKL for course and fieldwork and thesis research. www.un-ihe.org/herbd-unikl

IHE Delft is involved in two Erasmus Mundus Joint Master Degree programmes that focus on solutions for global water issues such as environmental degradation, floods and droughts.

Coastal Hazards, Risks, Climate Change and Adaptation (COASTHazar) is a joint MSc programme with a duration of 24 months, offered by IHE Delft in cooperation with University of Cantabria in Santander, Spain and University of Algarve in Faro, Portugal. Students start at University of Cantabria before coming to IHE Delft in the Netherlands for the 2nd semester. Thereafter they move to University of Algarve for the 3rd semester. In the final semester, students undertake a thesis research project in association with one of the above-mentioned institutions and possibly external partners. www.coasthazar.eu

International Master of Science in Environmental Technology and Engineering (IMETE) is a joint MSc programme with a duration of 24 months, offered by IHE Delft in cooperation with the Ghent University in Belgium and the University of Chemistry and Technology, Prague, Czech Republic. Students start at the University of Chemistry and Technology before coming to IHE Delft for the 2nd semester, and then move to Ghent for the 3rd semester. In the final semester, students undertake a thesis research project in association with one of the above-mentioned institutions and possibly external partners. www.imete.eu

Two other Erasmus Mundus programmes with IHE Delft involvement are under review and may be added to the offer of joint programmes starting in 2023. Check www.un-ihe.org/joint-master for updates.

Graduate Professional Diploma Programme

Online Courses (OLC)

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<tr>
<th>Course Title</th>
<th>Limnology and Wastewater Management</th>
<th>Humanitarian WASH</th>
<th>Sanitary Engineering</th>
<th>Sanitation</th>
<th>Water Supply Engineering</th>
<th>Water and Wastewater Treatment Technology</th>
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<tr>
<td>Advanced Water Transport and Distribution*</td>
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<td>Analysis of Sanitation Flows</td>
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<td>Behaviour Change and Advocacy</td>
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</table>

Participants select four of the courses among clusters belonging to six different tracks. Eligible online courses per track are listed in the scheme above.

*New course currently being developed - please check the website for the latest information.
### Online Courses 2023

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<td>Water Resources for Agricultural uses</td>
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<td>Water Transport and Distribution</td>
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### On-campus Short Courses 2023

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<td>Water Quality Assessment and Monitoring</td>
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<td>Resource Recovery from Sanitation Practices</td>
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<tr>
<td>Groundwater Resources and Treatment</td>
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<td>Water Infrastructure Asset Management</td>
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<td>Clean science for Water Management and Sustainable development</td>
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<td>Stakeholders, Partnerships and Network Analysis</td>
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<td>22/May/23</td>
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<td>Managing Resilient Water Utilities</td>
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<td>02/Jun/23</td>
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<tr>
<td>Environmental and Social Impact Assessment at Project and Strategic Levels</td>
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<td>Ecosystem Services Assessment for Informed Decision-making</td>
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<td>Water Resources Planning under Changing Climate and Environment</td>
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<td>Using Open Data, QGIS and HEC-RAS for Hydraulic Modelling</td>
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<td>Small Hydropower Developments – From Planning to Design</td>
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<td>Water Economics</td>
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<td>Flood and Coastal Erosion Risk Assessment</td>
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<td>Dates are subject to change - please check the website for updates.</td>
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### Open Courseware

- Biocological Wastewater Treatment: Principles, Modelling and Design
- Disinfection, Adsorption and Natural Processes for Water Treatment
- Fiscal Sludge Management
- Industrial Efficient Treatment
- Urban Wastewater and Sewerage
- Water and sanitation in urban transmission-context
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- Constructed Wetlands for Wastewater Treatment
- Assessment and Maintenance Technology
- Environmental Flows
- Experimental Methods in Wastewater Treatment
- Hazard and Climate adaptation
- Irrigation Management and Development
- Project Management for Sanitation
- Public and Environmental Health in Emergencies
- Remote Sensing for Agricultural Water Management
- Irrigation technology
- Solid Waste Management
- Water and Environmental Policy Analysis
- Water Resources for Agricultural uses
- Water Transport and Distribution
- Sanitation and Public Health
- Risk Assessment
- Water Quality Assessment
- Water Productivity and Water Accounting using WaPOR (also available in Arabic and French)
The Sustainable Development Goals (SDGs) are important and ambitious goals that guide us at IHE Delft in our work to address water and development challenges. As a water education institute developing capacity in water-related topics, we particularly focus on SDG 6, "Clean water and sanitation". However, our work is also important for other goals: water cannot be seen in isolation and is a precondition for achieving other goals. Therefore, together with our partners, we contribute to many SDGs including zero hunger, gender equality, affordable and clean energy, life on land, life below water, and sustainable cities and communities. As we approach 2030, IHE Delft will use an inter- and transdisciplinary approach to further strengthen the connections between our education, research and project activities.