# COURSE OVERVIEW LE0061
# Water Sampling

**Course Title**
Water Sampling




**Course Date/Venue**
November 16-20, 2026/TBA Meeting Room, Royal Rose Hotel Abu Dhabi, a Curio Collection by Hilton Affiliated Hotel, Abu Dhabi, UAE



**Course Reference**
LE0061

**Course Duration/Credits**
Five days/3.0 CEUs/30 PDHs

**Course Description**







***This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.***

This course is designed to provide participants with a detailed and up-to-date overview of Water Sampling. It covers the importance of water sampling in water quality monitoring, regulatory compliance and public health; the different water sources and their unique sampling requirements; the basics of water quality parameters; the tools, containers and preservation materials used in water sampling; and the best practices for ensuring personal and public safety during the sampling process.

Further, the course will also discuss the regulatory framework for water sampling; the steps for developing a water sampling plan; the standard operating procedures (SOPs) for sampling; the sampling techniques for physical and chemical analysis, microbiological analysis, field measurements and on-site testing; and the proper documentation practices, including field notes, sample labels and maintaining the chain of custody for samples.

During this interactive course, participants will learn the QA/QC in water sampling, QA/QC procedures, checklists, data management and reporting; the common issues encountered during water sampling, such as contamination and sample degradation; conducting audits and reviews to ensure continuous improvement in sampling processes and compliance with SOPs; the sampling techniques for emerging contaminants; the passive sampling technologies and their applications in monitoring water quality over time; the remote sensing technologies and automated sampling equipment for continuous monitoring; the advanced techniques for preserving and transporting samples to prevent chemical changes or microbial growth; and the innovative analytical methods and technologies for water quality analysis in the laboratory.

**Course Objectives/Outcomes & Benefits for the Participants**

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on water sampling
- Discuss the importance of water sampling in water quality monitoring, regulatory compliance and public health
- Identify the different water sources and their unique sampling requirements as well as the basics of water quality parameters
- Recognize the tools, containers and preservation materials used in water sampling
- Apply best practices for ensuring personal and public safety during the sampling process and review regulatory framework for water sampling
- Illustrate the steps for developing a water sampling plan and apply standard operating procedures (SOPs) for sampling
- Carryout proper sampling techniques for physical and chemical analysis, microbiological analysis, field measurements and on-site testing
- Employ proper documentation practices including field notes, sample labels and maintaining the chain of custody for samples
- Implement QA/QC in water sampling, QA/QC procedures and checklists and data management and reporting
- Identify and troubleshoot common issues encountered during water sampling, such as contamination and sample degradation
- Conduct audits and reviews to ensure continuous improvement in sampling processes and compliance with SOPs
- Apply sampling techniques for emerging contaminants including passive sampling technologies and their applications in monitoring water quality over time
- Recognize remote sensing technologies and automated sampling equipment for continuous monitoring
- Carryout advanced techniques for preserving and transporting samples to prevent chemical changes or microbial growth
- Apply innovative analytical methods and technologies for water quality analysis in the laboratory

## Exclusive Smart Training Kit - H-STK®




*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

## Who Should Attend

This course provides an overview of all significant aspects and considerations of water sampling for water samplers, laboratory technicians, water resource managers, environment engineers, chemical engineers, water quality specialist, plant managers, operators and HSE staff and sampling assistant technicians.

## Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

## Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

## Course Fee

**US$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

## Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

**Course Certificate(s)**

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

**Certificate Accreditations**

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

**Course Instructor(s)**

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



**Mr. Henry Beer** is a **Senior Water Engineer** with **30 years** of in-depth industrial experience within the **Petrochemical**, **Oil & Gas** and **Refinery** industries. His wide expertise covers in the areas of **Water Hydraulic Modelling**, **Water Distribution System**, **Water Analysis & Quality Control**, **Water Sampling**, **Water Resources** Hydraulic, **Water** Hydraulic Operation & Troubleshooting, **Crude Oil & Water Testing**, **Crude Oil** Testing, **Crude Stabilization** Operations, **Crude Oil Storage** Handling, **Crude Oil & Water Sampling** Procedures, **Equipment Handling** Procedures, **Crude Oil Testing** Procedures, **Water Analysis**, **Process Systems** Foundations, **Gas Processing Plant** Operations & Control, **Gas Processing** Monitoring & Troubleshooting, **Chemical Engineering**, **Process Equipment Design & Troubleshooting**, **Polymers & Polymerization**, Applied **Process Engineering**, **Process Plant** Optimization, **Process Plant** Troubleshooting & Engineering Problem Solving, **Process** Plant Performance & Efficiency, **Flare Blowdown & Pressure Relief Systems**, **Polypropylene** Manufacturing, **Polyethylene** & Process Troubleshooting, **Process Operation Troubleshooting**, **Fluidized Bed Reactor**, **Oil Movement & Storage**, **Power Plant Chemistry**, **Catalyst** Manufacturing Techniques, **Fuel Systems** Management, **Process Design & Optimization**, **Aviation Fuel**, **Diesel Engine**, **Jet Fuel**, **Petrol**, IP Octane, Cetane Control, **Pipeline Distribution**, **Boiler** Fundamental Preparation, Flocculation Sedimentation, Hotline Water Softening Processes, **Desalination Processes**, **Reverse Osmosis**, **Molecular Sieves**, Loop Water Management System, **Sludge Removal**, **Cooling Water System**, **Tank Farms** and **Hydrocarbons**. Currently, he is the **Director** and **Senior Technical Consultant** wherein he is deeply involved in developing new industrial process and designing new process plants and equipment.

During his career life, Mr. Beer has gained his practical and field experience through his various significant positions and dedications as the **Global Commissioning Manager**, **Senior Business Analyst**, **Water Engineer**, **Process Engineer**, **Chemical Engineer**, **Technical Sales Engineer**, **Senior Technician**, **Entrepreneur**, **Financial Consultant**, **Business Analyst**, **Business Financial Planner**, **Independent Financial Planner**, **Investment Independent Financial Advisor**, **Financial Broker**, **Trainer/Instructor** and **Technical Consultant** for various international companies such as the Sasol, TAG Solvents, Virgin Solvent Products, RFS Financial Services (Pty) Ltd, FNB and GHC Trading.

## Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

***Day 1:*** ***Monday, 16th of November 2026***

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| *0730 – 0800* | *Registration & Coffee* |
| *0800 – 0815* | *Welcome & Introduction* |
| *0815 – 0830* | ***PRE-TEST*** |
| *0830 – 0930* | ***Overview of Water Sampling****: Introduction to the Importance of Water Sampling in Water Quality Monitoring, Regulatory Compliance & Public Health* |
| *0930 – 0945* | *Break* |
| *0945 – 1030* | ***Types of Water Sources:*** *Understanding Different Water Sources (Surface Water, Groundwater, Drinking Water, Wastewater) & Their Unique Sampling Requirements* |
| *1030 – 1115* | ***Basics of Water Quality Parameters:*** *Overview of Key Water Quality Parameters (Physical, Chemical, Biological) & What they Indicate About Water Quality* |
| *1115 – 1230* | ***Sampling Equipment & Materials:*** *Introduction to the Tools, Containers & Preservation Materials Used in Water Sampling* |
| *1230 – 1245* | *Break* |
| *1245 – 1420* | ***Safety in Water Sampling:*** *Best Practices for Ensuring Personal & Public Safety During the Sampling Process, including Personal Protective Equipment (PPE) & Hazard Identification* |
| *1420 - 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day One* |

***Day 2:*** ***Tuesday, 17th of November 2026***

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| *0730 – 0830* | ***Regulatory Framework for Water Sampling:*** *Overview of National & International Regulations & Guidelines Governing Water Sampling & Quality Standards* |
| *0830 - 0930* | ***Sampling Plan Development:*** *Steps for Developing a Water Sampling Plan, Including Objectives, Sampling Points, Frequency & Parameter Selection* |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Standard Operating Procedures (SOPs) for Sampling:*** *Detailed Review of SOPs for Various Types of Water Sampling, Including Legal & Regulatory Compliance* |
| *1100 – 1230* | ***Sampling for Physical & Chemical Analysis:*** *Techniques for Collecting Water Samples Intended for Physical & Chemical Analysis, including Temperature, pH, Dissolved Oxygen & Contaminants* |
| *1230 – 1245* | *Break* |
| *1245 – 1330* | ***Sampling for Microbiological Analysis:*** *Methods for Collecting & Handling Samples for Microbiological Testing, Including Coliforms & Pathogens* |
| *1330 - 1420* | ***Field Measurements & On-Site Testing:*** *Introduction to Conducting Field Measurements & On-Site Tests, Including the Use of Portable Equipment* |
| *1420 - 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Two* |

**Day 3: Wednesday, 18th of November 2026**

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| 0730 – 0830 | ***Documentation & Chain of Custody:*** *Proper Documentation Practices, Including Field Notes, Sample Labels & Maintaining the Chain of Custody for Samples* |
| 0830 - 0930 | ***Introduction to QA/QC in Water Sampling:*** *Importance of Quality Assurance & Quality Control (QA/QC) Measures to Ensure Reliability & Accuracy of Sampling & Analysis* |
| 0930 – 0945 | *Break* |
| 0945 – 1100 | ***QA/QC Procedures & Checklists:*** *Implementation of QA/QC Procedures, Including Calibration of Instruments, Use of Blanks, Duplicates & Standards* |
| 1100 – 1230 | ***Data Management & Reporting****: Best Practices for Data Management, Analysis & Reporting Results in a Scientifically Accurate & Comprehensible Manner* |
| 1230 – 1245 | *Break* |
| 1245 – 1420 | ***Troubleshooting Common Sampling Problems:*** *Identifying & Addressing Common Issues Encountered During Water Sampling, such as Contamination & Sample Degradation* |
| 1420 - 1430 | ***Recap*** |
| 1430 | *Lunch & End of Day Three* |

**Day 4: Thursday, 19th of November 2026**

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| 0730 – 0830 | ***Auditing & Review of Sampling Processes****: Conducting Audits & Reviews to Ensure Continuous Improvement in Sampling Processes & Compliance with SOPs* |
| 0830 - 0930 | ***Case Studies in QA/QC****: Review of Real-World Case Studies Highlighting the Importance & Impact Of QA/QC in Water Sampling* |
| 0930 – 0945 | *Break* |
| 0945 – 1100 | ***Emerging Contaminants & Special Sampling Techniques:*** *Sampling Techniques for Emerging Contaminants, Such as Pharmaceuticals, Personal Care Products & Endocrine Disruptors* |
| 1100 – 1230 | ***Passive Sampling Technologies****: Introduction to Passive Sampling Technologies & Their Applications in Monitoring Water Quality Over Time* |
| 1230 – 1245 | *Break* |
| 1245 – 1420 | ***Remote Sensing & Automated Sampling:*** *Overview of Remote Sensing Technologies & Automated Sampling Equipment for Continuous Monitoring* |
| 1420 - 1430 | ***Recap*** |
| 1430 | *Lunch & End of Day Four* |

**Day 5: Friday, 20th of November 2026**

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| 0730 – 0930 | ***Sample Preservation & Transportation:*** *Advanced Techniques for Preserving & Transporting Samples to Prevent Chemical Changes or Microbial Growth* |
| 0930 – 0945 | *Break* |
| 0945 – 1100 | ***Innovative Analytical Methods:*** *Brief Overview of Innovative Analytical Methods & Technologies for Water Quality Analysis in the Laboratory* |
| 1100 – 1200 | ***Workshop on Sampling Equipment & Technologies:*** *Hands-On Workshop Demonstrating the Use of Advanced Sampling Equipment & Technologies* |
| 1200 – 1215 | *Break* |
| 1215 - 1345 | ***Review & Q&A Session:*** *Comprehensive Review of Key Concepts Covered During the Course & an Open Q&A Session to Address Any Uncertainties.* |
| 1345 – 1400 | ***Course Conclusion*** |
| 1400 – 1415 | ***POST-TEST*** |
| 1415 – 1430 | *Presentation of Course Certificates* |
| 1430 | *Lunch & End of Course* |

**Practical Sessions**

This practical and highly-interactive course includes real-life case studies and exercises:-



**Course Coordinator**

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org