

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Wastewater Treatment Operations

5 days | Classroom training | English

SMART HORIZON

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Course content

Why attend

Wastewater treatment protects public health and the environment. This course covers wastewater characteristics, preliminary and primary treatment, biological treatment processes, clarification, sludge treatment, disinfection, process control, laboratory testing, compliance with discharge limits and maintenance.

Process upsets lead to permit breaches and environmental harm. You will learn to operate treatment plants reliably.

Professional Problems This Course Is Designed to Solve

• Difficulty translating subject knowledge into practical workplace decisions.
• Inconsistent approaches to the activities covered in the course outline.
• Lack of a structured plan for applying and reviewing new skills.

Course methodology

Process control exercises, troubleshooting scenarios, laboratory data interpretation and case studies.

Course objectives

By the end of this course, participants will be able to:
• Explain wastewater characteristics and treatment stages
• Operate preliminary and primary treatment
• Control biological treatment processes
• Manage clarification and sludge treatment
• Apply disinfection and meet discharge limits
• Troubleshoot process problems

Target audience

This course is suitable for:
• Wastewater plant operators
• Process engineers
• Environmental compliance staff
• Maintenance technicians
• Municipal utility staff



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Target competencies

Participants will develop competencies in:

- Process control
- Biological treatment
- Sludge management
- Compliance
- Troubleshooting

Course outline

Day 1: Wastewater Basics

09:00–10:08	Wastewater characteristics
10:08–11:00	Treatment stages
11:00–11:30	**Coffee break**
11:30–11:45	Treatment stages (continued)
11:45–12:53	Regulations
12:53–14:00	Exercise

Day 2: Primary Treatment

09:00–10:08	Screening and grit removal
10:08–11:00	Primary clarification
11:00–11:30	**Coffee break**
11:30–11:45	Primary clarification (continued)
11:45–12:53	Operations
12:53–14:00	Workshop

Day 3: Biological Treatment

09:00–10:08	Activated sludge
10:08–11:00	Process control parameters
11:00–11:30	**Coffee break**



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11:30–11:45	Process control parameters (continued)
11:45–12:53	Nutrient removal
12:53–14:00	Exercise

Day 4: Sludge and Disinfection

09:00–10:08	Sludge treatment
10:08–11:00	Disinfection
11:00–11:30	**Coffee break**
11:30–11:45	Disinfection (continued)
11:45–12:53	Laboratory testing
12:53–14:00	Case study

Day 5: Troubleshooting

09:00–10:08	Common upsets
10:08–11:00	Corrective actions
11:00–11:30	**Coffee break**
11:30–11:45	Corrective actions (continued)
11:45–12:53	Compliance reporting
12:53–14:00	Action plan

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the sessions. They are indicative only and do not constitute a binding commitment.



Course content

Dates, venues and fees

Current published course plans. Fees are per participant in EUR, excluding unconfirmed taxes.

Venue	Start date	End date	Fee (EUR)
Cape Town Confirmed dates	23 Nov 2026	27 Nov 2026	**€3,780.–**
Online Confirmed dates	23 Nov 2026	27 Nov 2026	**€1,250.–**
London Confirmed dates	14 Dec 2026	18 Dec 2026	**€4,900.–**
Online Confirmed dates	14 Dec 2026	18 Dec 2026	**€1,250.–**
Kuala Lumpur Confirmed dates	18 Jan 2027	22 Jan 2027	**€2,900.–**
Online Confirmed dates	18 Jan 2027	22 Jan 2027	**€1,250.–**
Istanbul Confirmed dates	1 Feb 2027	5 Feb 2027	**€5,300.–**
Online Confirmed dates	1 Feb 2027	5 Feb 2027	**€1,250.–**
Rome Confirmed dates	22 Feb 2027	26 Feb 2027	**€4,900.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	22 Feb 2027	26 Feb 2027	**€1,250.–**
London Confirmed dates	15 Mar 2027	19 Mar 2027	**€4,900.–**
Online Confirmed dates	15 Mar 2027	19 Mar 2027	**€1,250.–**
Vienna Confirmed dates	5 Apr 2027	9 Apr 2027	**€5,880.–**
Online Confirmed dates	5 Apr 2027	9 Apr 2027	**€1,250.–**
Rome Confirmed dates	26 Apr 2027	30 Apr 2027	**€4,900.–**
Online Confirmed dates	26 Apr 2027	30 Apr 2027	**€1,250.–**
Vienna Confirmed dates	10 May 2027	14 May 2027	**€5,880.–**
Online Confirmed dates	10 May 2027	14 May 2027	**€1,250.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Barcelona Confirmed dates	31 May 2027	4 Jun 2027	**€5,680.-**
Online Confirmed dates	31 May 2027	4 Jun 2027	**€1,250.-**
Dubai Confirmed dates	21 Jun 2027	25 Jun 2027	**€6,300.-**
Online Confirmed dates	21 Jun 2027	25 Jun 2027	**€1,250.-**
Rome Confirmed dates	12 Jul 2027	16 Jul 2027	**€4,900.-**
Online Confirmed dates	12 Jul 2027	16 Jul 2027	**€1,250.-**
Cape Town Confirmed dates	2 Aug 2027	6 Aug 2027	**€3,780.-**
Online Confirmed dates	2 Aug 2027	6 Aug 2027	**€1,250.-**
Barcelona Confirmed dates	16 Aug 2027	20 Aug 2027	**€5,680.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	16 Aug 2027	20 Aug 2027	**€1,250.-**
Dubai Confirmed dates	6 Sept 2027	10 Sept 2027	**€6,300.-**
Online Confirmed dates	6 Sept 2027	10 Sept 2027	**€1,250.-**
Paris Confirmed dates	27 Sept 2027	1 Oct 2027	**€5,720.-**
Online Confirmed dates	27 Sept 2027	1 Oct 2027	**€1,250.-**
Dubai Confirmed dates	18 Oct 2027	22 Oct 2027	**€6,300.-**
Online Confirmed dates	18 Oct 2027	22 Oct 2027	**€1,250.-**
Frankfurt Confirmed dates	8 Nov 2027	12 Nov 2027	**€5,300.-**
Online Confirmed dates	8 Nov 2027	12 Nov 2027	**€1,250.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Amsterdam Confirmed dates	22 Nov 2027	26 Nov 2027	**€5,080.-**
Online Confirmed dates	22 Nov 2027	26 Nov 2027	**€1,250.-**
Cape Town Confirmed dates	13 Dec 2027	17 Dec 2027	**€3,780.-**
Online Confirmed dates	13 Dec 2027	17 Dec 2027	**€1,250.-**

Plan your next step

Dates, availability, exact venue, taxes, inclusions and payment terms require written confirmation. This brochure is not a quotation, registration, booking confirmation or visa invitation. Participants receive a Smart Horizon certificate of attendance; programmes are not externally accredited and do not award a professional qualification or designation. Confirm arrangements before booking travel.

For group or in-house training, contact our learning team to discuss your objectives and delivery arrangements.

Contact Smart Horizon

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View the latest course details online