

Government Funded Management Apprenticeships for Water Treatment Technicians

LEVEL
3



FUNDED THROUGH THE APPRENTICESHIP LEVY!

Fully supported by industry leading expert tutors, comprehensive learning materials and a sophisticated learning management system.

The Level 3 Water Treatment Technician Apprenticeship has Government funding of up to £15,000.00 per person.



Level 3 Apprenticeship for Water Treatment Technicians



About the Programme

The programme - PO453 Water Treatment Technician - is delivered over 24-30 months combining highly interactive face-to-face and virtual workshops, progressive work-based assessments and improvement projects, individual tutoring and mentoring. It will be delivered by some of the world's leading experts in water treatment.

During this time the employer, apprentice and Training Provider must demonstrate the achievement of 6 hours per week OTJT (Off the Job Training).

The standard is at Level 3. To take part you apprentices have functional skills in English and Maths. Apprentices without level 2 English and maths GCSE at grade C or above, will need to achieve this level as soon as possible during the programme - and certainly prior to taking the end-point assessment.

If Functional Skills are required, employers must provide extra time for this. Government Funding of £742 per learner is provided – funding beyond this point required to achieve the required GCSE standards must be funded by the employer.

Who is the programme for?

The Level 3 Water Technician's Apprenticeship is the professional qualification for Water Treatment Technicians.

They are responsible for the development, installation and maintenance of water treatment programmes for water systems in industrial and commercial buildings, hotels and institutional premises including colleges, schools, hospitals and care homes.

What's in the Programme?

The core Knowledge, Skills & Behaviours (KSBs) required to do any technician role in Water Treatment - plus the additional Knowledge and Skills required for the following specific roles (Pathways):

- Water Treatment Technician
- Water Treatment Equipment Technician
- Legionella Risk Assessor
- Water Treatment Operations Supervisor

Pathways, Knowledge & Skills

These are shown below for all roles:

Water Treatment Technician	
CORE KNOWLEDGE ELEMENTS:	CORE SKILLS ELEMENTS:
<ol style="list-style-type: none"> 1. Understand Safe and Professional working practices 2. Advanced requirements, principles and risks involved with the operation of water systems 3. Acquire the advanced technical knowledge required to support their role including: <ul style="list-style-type: none"> • Chemical reactions involved in the corrosion and scaling processes in water systems • Inhibition methods for the reduction of corrosion of different metals including steel, copper and aluminium in water systems • Inhibition methods for the reduction of different scale types in specific water systems including cooling towers, steam boilers and manufacturing processes, etc. • Cell structure of waterborne microbes and the interactions with biocidal products used to control them • The concepts of flow and heat transfer in water systems and how they affect water treatment processes • Ion transfer technologies, including resin and membrane-based systems, used to change water quality • The use of specialised analytical equipment for the testing in the field of water samples including digital titration, colourimeters and photometers 	<ol style="list-style-type: none"> 1. Keep themselves and others safe by adhering to safe working practices. 2. Prepare for a high standard of technical work. 3. Deliver a high standard of technical work. 4. Identify, evaluate and resolve practical and technical problems. 5. Use resources effectively. 6. Communicate effectively. 7. Maintain a level of competence commensurate with the job role.

Water Treatment Technician/Water Treatment Equipment Technician

Pathways	
Water Treatment Technician	Water Treatment Equipment Technicians
<p>Water treatment technicians are responsible for surveying the construction of water systems and the specific use of water within these systems.</p> <p>The Technician will then advise and recommend suitable treatment programmes, both chemical and physical, to minimise corrosion, scale and microbiological growth in order to maximise the system/process efficiency and system plant life.</p> <p>They assess the performance of treatment programmes through on-site testing and laboratory analysis and advise on system and programme improvements.</p>	<p>They are responsible for specifying equipment to be used for water treatment processes or to be used within a water treatment programme.</p> <p>They will recommend equipment based on local water conditions, water application and site installation conditions.</p> <p>They install equipment on customer's sites, service and maintain equipment and troubleshoot equipment installations.</p> <p>Equipment can include softeners, reverse osmosis, electro-deionisation, demineralisation, chemical dosing and control, water pumps, and filters.</p>

Knowledge	Knowledge
Water Treatment Technician	Water Treatment Equipment Technicians
<ul style="list-style-type: none"> Understand the water treatment requirements of specific water systems e.g., steam boilers, cooling towers etc. Understand the treatment options available for specific water systems e.g., pre-treatment plant, chemical treatment etc. Acquire the knowledge required to assess the performance of water treatment programmes and to recommend improvements 	<ul style="list-style-type: none"> Understand the water treatment requirements of specific water applications and processes e.g., water used for pharmaceutical manufacturing, chemical treatment dosing Understand the equipment options available and their relevant benefits Acquire the knowledge required to install, service and maintain specific items of equipment relevant to their job role
Skills	Skills
<ul style="list-style-type: none"> Design, specify and recommend chemical water treatment programmes taking into account water supply quality and system operating conditions Evaluate the suitability of alternative physical and chemical water treatment programmes for specific water systems and applications Give presentations and demonstrations to customer/site personnel regarding treatment recommendations and control requirements Assess the performance of a water system treatment programme and provide recommendations for improvement Organise, construct, manage and report review meetings with customers/site personnel 	<ul style="list-style-type: none"> Complete water system surveys and produce system diagrams appropriate to the presentation of system data e.g., the layout of the treatment plant within the system location Evaluate and design appropriate water treatment equipment installations Install, commission and service water treatment equipment Assess the performance of a water system treatment programme Supervise a team and manage the health, safety and environment of a water treatment equipment installation and/or operation

Legionella Risk Assessor/Water Treatment Operations Supervisor

Pathways	
Legionella Risk Assessors	Water Treatment Operations Supervisors
<p>Legionella Risk Assessors assess the public health risks associated with water systems and provide detailed recommendations for a design revision, remedial works, operating parameters, improvement actions, control plans and management schemes.</p> <p>Systems can include evaporative cooling systems, hot & cold water, spa, therapy and swimming pools, washing/cleaning facilities and process water applications.</p>	<p>Water Treatment Operations Supervisors oversee water treatment projects on a customer's site involving teams of operatives, sub-contractors and other specialised services.</p> <p>They are responsible for developing work plans, assessing the work task risks involved, including chemical handling, and producing method statements to minimise the risks of the project.</p> <p>Projects can include pre-commission cleaning in new or refurbished buildings, closed system flushing, cooling tower cleaning, potable water disinfection, and acid/alkali cleaning.</p>

Knowledge	Knowledge
Legionella Risk Assessors	Water Treatment Operations Supervisors
<ul style="list-style-type: none"> • Know and understand any regulatory requirements and guidance appropriate to the water systems being assessed • Understand the principles of risk assessment and the identification of hazards in water systems • Understand the application of water treatment programmes for specific water systems • Understand the principles of design for water systems and water treatment equipment e.g., water tanks, calorifiers, softeners etc. • Acquire the knowledge required to recommend remedial actions, optional system improvements and management requirements. 	<ul style="list-style-type: none"> • Understand the water treatment requirements of specific water systems e.g., drinking water systems, process water systems etc. • Understand chemical cleaning and disinfection programme options for specific water systems and processes • Acquire the knowledge required to assess the performance of water treatment cleaning/disinfection operation • Understand the risks involved, the relevant Health and Safety regulations associated with the project and the specific requirements of the project site
Skills	Skills
<ul style="list-style-type: none"> • Carry out site/system investigations and surveys • Prepare water system diagrams and drawings • Assess the comparative risk of Legionellosis presented by specific water systems • Identify remedial, improvement and management actions required to minimise any risk presented • Prepare and present the assessment report findings to customer/site personnel • Review the implementation of remedial actions recommended in the risk assessment e.g., pipework changes, insulation and review the employment of management controls e.g., temperature monitoring programmes, system analysis results 	<ul style="list-style-type: none"> • Complete water system surveys and produce system diagrams appropriate for the direction and management of a cleaning/disinfection project • Understand and apply chemical cleaning and disinfection programmes for specific water systems • Install, commission and service temporary operations equipment required to complete the project e.g., flushing pump stations, side stream filtration, cooling tower packing • Assess the performance and progress of a water treatment cleaning/disinfection operation by sample analysis and make adjustments to the programme as required • Supervise a team of Water Treatment Operatives and any associated sub-contractors • Produce a method statement and control scheme to manage the health, safety and environment during the various phases of a project

Joining criteria

Employers can set their own criteria for learners and can take advantage of Apprenticeship Levy funding for this Level 3 programme.

NOTE: Minimum entry requirements to qualify for levy funding are level 2 English and Maths at GCSE. A skills audits and interview process are mandatory.

To qualify for levy funding learners must have been a UK/EEA/EU resident for the last three years.

Making the Most of the Apprenticeship Levy

These apprenticeships are specifically designed to qualify existing water treatment staff, regardless of their age or length of service. There is no upper age limit.

If your organisation's payroll is over £3m per annum the government will already deduct a levy of 0.5% of your payroll through HMRC which will be held in a Digital Account.

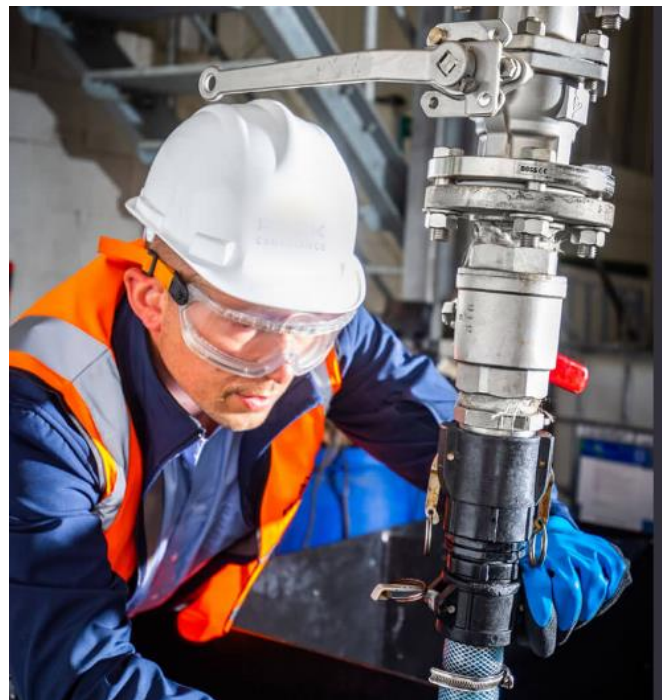
Smaller organisations can also draw down apprenticeship funding.

We will advise your organisation on the whole process, manage and deliver the programme to the standards required by the Educational and Skills Funding Agency, Ofsted and the awarding body for the apprenticeship - the Water Treatment Association

Assessment

Apprenticeships are assessed against the following criteria:

- **Knowledge** – Assessed through progressive assessments which are work focussed
- **Skills** – Assessed through uploading evidence of work
- **Behaviours** – assessed through assignments
- **End point assessment (EPA)** – Assessed via a review of uploaded work, a knowledge test, a presentation with questions and a professional discussion.



Tutorial support

In addition to scheduled modules, individual tutor support will be available throughout the programme - accessed through the Learning Management System and your Client Services Manager at Cherith Simmons Learning & Development LLP.

You will receive access to the Learning Management System on acceptance onto the programme and will be provided with a detailed Learner Journey to guide you through the entire programme.

Learner Journey and Handbook

The Learner Journey Level 3

Water Treatment Technician Apprenticeship

Incorporating:

**Water Treatment Technician, Water Treatment Equipment
Technician, Legionella Risk Assessor,
Water Treatment Operations Supervisor**

*Add name of client/open access programme e.g., 'Company'/Cohort no.
and any logo they wish to use*

Attended/ Virtual Classroom



**Delivered by Cherith Simmons Learning & Development
in collaboration with:**



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This is where you
will find all the
answers!

Full EPA preparation is provided. Cherith Simmons are currently achieving 85% distinctions in EPA passes.

Who is delivering the programme?

The programme will be delivered and managed by Cherith Simmons LLP working closely with water treatment experts who helped create the apprenticeship standard.

Cherith Simmons Learning and Development is a leading edge ESFA approved Training Provider. We are a partnership with accreditation from all leading Leadership and Management accrediting bodies in the UK.

Here’s what Ofsted said about us recently:

“Cherith Simmons Learning & Development have a clear vision to prepare future apprentices to succeed in highly challenging and changing business environments. They have developed a curriculum that often goes beyond the requirements of the apprenticeship and allows apprentices to develop a greater understanding of theories and practices. Consequently, apprentices, who are often already experienced employees, develop new and valuable knowledge and skills.”

At our most recent Ofsted inspection we were rated **‘Good’** against all 5 assessment criteria. Currently, **85%** of our apprentices achieve distinction at their End Point Assessment

Highly experienced tutors

Tuition will be by leading experts in the field of Water Treatment, who will also provide expert assessments.

Dedicated support team

All programmes have a dedicated graduate-level Client Services Manager who is the first point of contact for all participants and our clients. FAQs, forums, webinars and email contact are available 24/7.

Who are our clients?

Cherith Simmons designs and delivers a wide range of Leadership and management development programmes across the UK & internationally in all sectors, through face-to-face & virtual workshops, coaching, and mentoring learning for all programmes.





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