



ProQual Level 3 Award in Understanding Waste Water Treatment

Qualification Specification

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Introduction

The ProQual Level 3 Award in Understanding Waste Water Treatment qualification provides a nationally recognised qualification for those working in the water industry looking to develop their technical skills and understanding of waste water treatment.

The awarding body for this qualification is ProQual Awarding Body (www.proqualab.com) and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual).

The qualification has been accredited onto the Regulated Qualifications Framework (RQF) and is published on Ofqual's Register of Qualifications.

Qualification Profile

Level 3 Award in Understanding Waste Water Treatment

Qualification title	ProQual Level 3 Award in Understanding Waste Water Treatment
Ofqual qualification number	610/4115/4
Level	3
Total qualification time	60 hours
Guided learning hours	50 hours
Credits	6
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	22/04/2024
Qualification end date	

Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

Qualification Structure

To achieve the qualification candidates must complete all of the Mandatory units.

Mandatory Units – candidates must complete all units in this group			
Unit Reference Number	Unit Title	Unit Level	GLH
M/651/1271	Introduction to Waste Water Treatment	3	50

Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

Staff

Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

Assessors/Internal Quality Assurance

Assessors for each unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or internal quality assurance qualifications.

Support for Candidates

Materials produced by centres to support candidates should:

- Enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- Provide information on where ProQual's policies and procedures can be viewed;
- Provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

Assessment

Candidates must demonstrate the level of knowledge and/or skills described in the units. Assessment is the process of measuring a candidate's knowledge and understanding against the standards set in the qualification.

This qualification must be internally assessed by an appropriately experienced and qualified assessor.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence can include:

- Observation report by assessor
- Assignments/projects/reports
- Professional discussion
- Witness testimony
- Candidate product
- Worksheets
- Record of oral and written questioning
- Recognition of Prior Learning

Learning outcomes set out what a candidate is expected to know, understand or be able to do.

Assessment criteria specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 8.

Additional information for assessment and requirements for unit **endorsements** where relevant is included after all of the learning outcomes and assessment criteria for each unit.

Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

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Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

Learning Outcomes and Assessment Criteria

Title: Introduction to Waste Water Treatment

Unit Number: M/651/1271

Learning outcomes

The learner will be able to:

- 1 Understand regulatory compliance with respect to wastewater treatment.
- 2 Understand the principles of and best practice associated with the operation of successful water treatment.

Assessment criteria

The learner can:

- 1.1 Explain the regulatory framework with regards to the water industry, applicable to waste water treatment.
- 1.2 Identify industry regulations and environmental requirements, applicable to waste water treatment.
- 1.3 Identify relevant industry health and safety standards.
- 1.4 Explain the permit requirements and regulations pertaining to the discharge of treated wastewater to the environment.
- 2.1 Explain how the wastewater network and conditions in the sewerage network influence the operation of wastewater treatment works.
- 2.2 Explain storm separation and storm water treatment including Regulatory Compliance.
- 2.3 Identify processes within the water treatment range, including:
 - Preliminary treatment
 - Primary treatment
 - Biological treatment both Suspended Growth and Fixed Film
 - Tertiary Treatment
 - Sludge Treatment and Recycling
- 2.4 Explain the purpose of processes within the water treatment range.
- 2.5 Describe different types of plant in use for processes within the water treatment range.
- 2.6 Explain the key design criteria for processes within the water treatment range.
- 2.7 Describe best practice for operation of processes within the water treatment range.
- 2.8 Describe common failures modes for processes within the water treatment range.

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| 2 | continued | <p>2.9 Describe and explain how the processes within the water treatment range can be made more resilient with respect to the identified failure modes.</p> <p>2.10 Explain the microbiology of at least one form of biological treatment.</p> <p>2.11 Explain Regulatory Compliance with regards to any discharge to the environment from the Treatment Works.</p> |
| 3 | Understand the principles of best practice for sludge collection, storage, treatment and final disposal or recycling. | <p>3.1 Explain the origin and nature of sludge.</p> <p>3.2 Describe processes used for collection, storage, treatment and disposal or recycling of sludge.</p> <p>3.3 Explain the purpose of each identified process.</p> <p>3.4 Explain the critical control points for each identified process.</p> <p>3.5 Describe best practice operation for each identified process.</p> <p>3.6 Describe the common failure modes for each identified process.</p> <p>3.7 Describe the process and purpose of mesophilic anaerobic sludge digestion.</p> <p>3.8 Describe the process and purpose of at least one enhanced sludge treatment process.</p> |
| 4 | Understand the need for the Water Industry to become more resilient. | <p>4.1 Explain the customer and regulatory drivers for increased resilience.</p> <p>4.2 List the potential impacts of a changing climate.</p> <p>4.3 Describe the effect of Climate Change on a Risk and Resilience strategy.</p> |



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