NCFE Active IQ Level 3 Award in Managing Pool Operations
QN: 603/4975/X



Qualification Specification

Qualification summary

Qualification title	**NCFE Active IQ Level 3 Award in Managing Pool Operations**
Ofqual qualification number (QN)	603/4975/X
Guided learning hours (GLH)	55
Total qualification time (TQT)	81
Minimum age	16
Qualification purpose	This qualification is designed to provide learners with an understanding of the technical operations of swimming pools, small pools, (such as, school pools, hotel pools, hydrotherapy pools) and to provide the knowledge and skills required to manage and operate pool plant safely and efficiently.
Grading	Achieved/not yet achieved
Assessment method	Internally assessed and externally quality assured portfolio of evidence
Work/industry placement experience	Work/industry placement experience is not required.
Endorsement	This qualification is fully mapped to the CIMSPA (Chartered Institute for the Management of Sport and Physical Activity) Pool Plant Operative Professional Standard. Learners successfully completing this qualification will have met the requirements of the CIMSPA Pool Plant Operative Professional Standard and can use the qualification as evidence when applying for the relevant CIMSPA professional status. CIMSPA Endorsed | Professional Standards
UCAS	Please refer to the UCAS website for further details of points allocation and the most up-to-date information.
Performance points	Please check the performance points data produced by the Department for Education (DfE) and available online.
Regulation information	This is a regulated qualification. The regulated number for this qualification is 603/4975/X.
Funding	This qualification may be eligible for funding. For further guidance on funding, please contact your local funding provider.

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Section 1: introduction

Centres must ensure they are using the most recent version of the Qualification Specification on the website.

Aims and objectives

This qualification aims to:

- focus on the study of managing pool operations
- offer breadth and depth of study, incorporating a key core of knowledge
- provide opportunities to acquire a number of practical and technical skills.

Support Handbook

This Qualification Specification must be used alongside the mandatory Support Handbook, which can be found on the NCFE website. This contains additional supporting information to help with planning, delivery and assessment.

This Qualification Specification contains all the qualification-specific information you will need that is not covered in the Support Handbook.

Guidance for entry

This qualification is designed for learners considering a career in the active leisure sector, learners wishing to develop an understanding of the technical operations of swimming pools and other types of pools and learners wishing to progress on to a facility management position in the active leisure sector.

Registration is at the discretion of the centre in accordance with equality legislation and should be made on the NCFE Portal.

There are no specific prior skills/knowledge a learner must have for this qualification. However, there is an element of communication (discussing, presenting, reading and writing) involved and learners should have basic skills in communication pitched at level 2.

Centres are responsible for ensuring that all learners are capable of achieving the learning outcomes (LOs) and complying with the relevant literacy, numeracy, and health and safety requirements.

Learners registered on this qualification should not undertake another qualification at the same level, or with the same/a similar title, as duplication of learning may affect funding eligibility.

Achieving this qualification

To be awarded this qualification, learners are required to successfully achieve **three units** from the mandatory units.

Please refer to the list of units in appendix A for further information.

To achieve this qualification, learners must successfully demonstrate their achievement of all LOs of the units as detailed in this Qualification Specification.

Progression

Learners who achieve this qualification could progress to the following:

- higher education:
  - apprenticeships within the active leisure sector.

Progression to higher-level studies

Level 3 qualifications can support progression to higher-level study, which requires knowledge and skills different from those gained at levels 1 and 2. Level 3 qualifications enable learners to:

- apply factual, procedural and theoretical subject knowledge
- use relevant knowledge and methods to address complex, non-routine problems
- interpret and evaluate relevant information and ideas
- understand the nature of the area of study or work
- demonstrate an awareness of different perspectives and approaches
- identify, select and use appropriate cognitive and practical skills
- use appropriate research to inform actions
- review and evaluate the effectiveness of their own methods.

Resource requirements

There are no mandatory resource requirements for this qualification, but centres must ensure learners have access to suitable resources to enable them to cover all the appropriate LOs.

Realistic work environment (RWE) requirement/recommendation

The assessment of competence-based criteria should ideally be conducted within the workplace. However, in instances where this is not feasible, learners can be assessed in a realistic work environment (RWE) designed to replicate real work settings.

It is essential for organisations utilising an RWE to ensure it accurately reflects current and authentic work environments. By doing so, employers can be confident that competence demonstrated by a learner in an RWE will be translated into successful performance in employment.

In establishing an RWE, the following factors should be considered.

The work situation being represented is relevant to the competence requirements being assessed:

- the work situation should closely resemble the relevant setting
- equipment and resources that replicate the work situation must be current and available for use to ensure that assessment requirements can be met
- time constraints, resource access and information availability should mirror real conditions.

The learner's work activities reflect those found in the work environment being represented, for example:

- interaction with colleagues and others should reflect expected communication approaches
- tasks performed must be completed to an acceptable timescale
- learners must be able to achieve a realistic volume of work as would be expected in the work situation being represented
- learners operate professionally with clear understanding of their work activities and responsibilities

- feedback from colleagues and others (for example customers, service users) is maintained and acted upon
- account must be taken of any legislation, regulations or standard procedures that would be followed in the workplace.

How the qualification is assessed

Assessment is the process of measuring a learner's skill, knowledge and understanding against the standards set in a qualification.

This qualification is internally assessed and externally quality assured.

The assessment consists of **one** component:

- an internally assessed portfolio of evidence, which is assessed by centre staff and externally quality assured by NCFE (internal quality assurance must still be completed by the centre as usual).

Learners must be successful in this component to gain the Level 3 Award in Managing Pool Operations.

Learners who are not successful can resubmit work within the registration period; however, a charge may apply in cases where additional external quality assurance visits are required.

Unless otherwise stated in this specification, all learners taking this qualification must be assessed in English and all assessment evidence presented for external quality assurance must be in English.

Internal assessment

Each learner must create a portfolio of evidence generated from appropriate assessment tasks to demonstrate achievement of all the LOs associated with each unit. On completion of each unit, learners must declare that the work produced is their own and the assessor must countersign this.

If a centre needs to create their own internal assessment tasks, there are four essential elements in the production of successful centre-based assessment tasks; these are:

- ensuring the assessment tasks are meaningful with clear, assessable outcomes
- appropriate coverage of the content, LOs or assessment criteria (AC)
- having a valid and engaging context or scenario
- including sufficient opportunities for stretch and challenge for higher attainers.

Section 2: unit content and assessment guidance

This section provides details of the structure and content of this qualification including grading, level, credit and guided learning hours (GLH).

The types of evidence listed are for guidance purposes only. Within learners' portfolios, other types of evidence are acceptable if all learning outcomes (LOs) are covered, and if the evidence generated can be internally and externally quality assured. For approval of methods of internal assessment other than portfolio building, please contact your external quality assurer (EQA).

Unit 01 The principles and practice of pool water treatment and testing (L/617/7339)

Assessment			
Internally assessed and externally quality assured portfolio of evidence			
Mandatory	**Achieved/not yet achieved**	**Level 2**	**20 GLH**

Learning outcomes (LOs) The learner will:	**Assessment criteria (AC)** The learner can:
1. Understand the legal responsibilities of pool operators to provide a safe pool environment	1.1 Describe the legal responsibilities of pool operators to provide a safe pool environment
	1.2 State the ways in which pool operators can meet these legal requirements
	1.3 List the key current legislation and regulations which relate to pool operations
2. Understand the different types of pools and pool ownership	2.1 Identify a range of pools used in active leisure facilities
	2.2 Describe the main purpose of each of the pool types used in the active leisure sector
	2.3 Explain the ownership and management methods used in the active leisure sector
3. Understand the causes of pool water pollution and contamination	3.1 List the causes of pool water pollution to include: • physical pollutants • chemical pollutants • biological pollutants.
4. Understand the importance of good bather hygiene prior to the use of pools	4.1 List the advantages to both the user and the pool operators of good hygiene
	4.2 List ways to encourage the user to utilise good hygiene practice before entering the pool
5. Understand the importance of good standards of cleanliness in the swimming pool environment	5.1 State ways to minimise the transfer of dirt onto the poolside
	5.2 State the correct processes for the effective cleaning of the pool and surroundings
6. Understand the operating principles of a simple pool water circulation system	6.1 List the main components of a pool water circulation system
	6.2 State the correct sequence of the pool water circulation system
7. Know the recommended temperatures for the types of pools	7.1 List the recommended pool water temperatures for a range of pools
8. Understand how pool operators provide a safe pool environment	8.1 Explain the reasons for disinfecting swimming pools
	8.2 State the pool water tests needed to ensure a safe pool environment
	8.3 Describe the process for calculating combined chlorine levels
	8.4 Describe the recommended range for pool water pH levels
	8.5 List the recommended range for pool water disinfection levels to include: • chlorine-based disinfectants • bromine-based disinfectants.

Learning outcomes (LOs) The learner will:	**Assessment criteria (AC)** The learner can:
9. Know the essential tests to ensure optimum pool water quality	9.1 List the pool water tests required to ensure optimum pool water quality
	9.2 List the optimum range for each pool water test to ensure pool water quality
	9.3 Describe the correct procedure for carrying out the pool water tests required to ensure good pool water quality
10. Understand the different types of pool water testing equipment needed to ensure good quality pool water	10.1 Know the different types of test equipment used for testing pool water
11. Demonstrate correct pool water testing techniques	11.1 Carry out a pool water pH test
	11.2 Record pool water pH level
	11.3 Carry out a pool water free chlorine/total bromine test
	11.4 Record pool water free chlorine/total bromine level
	11.5 Carry out a pool water total chlorine test
	11.6 Record pool water total chlorine levels
	11.7 Calculate and record the pool water combined chlorine level
	11.8 Carry out a pool water total alkalinity test
	11.9 Calculate and record the pool water total alkalinity level
	11.10 Carry out a pool water calcium hardness test
	11.11 Calculate and record the pool water calcium hardness level
	11.12 Carry out a pool water TDS test
	11.13 Record the pool water TDS level
12. Understand the importance of good record keeping	12.1 List the reasons why it is essential to maintain accurate records of pool water tests

Unit 02 The principles of pool plant operations and chemical safety (F/617/7340)

Assessment			
Internally assessed and externally quality assured portfolio of evidence			
Mandatory	**Achieved/not yet achieved**	**Level 3**	**14 GLH**

Learning outcomes (LOs) The learner will:	**Assessment criteria (AC)** The learner can:
1. Understand the processes involved in the treatment of pool water	1.1 Explain the function of the **main components of a pool plant**
	1.2 Draw a schematic diagram of a pool to show the principal components and main valves
2. Understand the different types of pool water filtration systems	2.1 Identify a range of pool water filtration systems
	2.2 Explain the importance of coagulation and flocculation in the filtration process
3. Understand the importance of cleaning the pool filtration system regularly	3.1 Explain the importance of cleaning the pool filtration system regularly
	3.2 Describe the process of backwashing sand filters
	3.3 Identify when a backwash should be carried out
	3.4 Explain the reasons why a backwash must be carried out
	3.5 List the items which should be recorded as evidence when backwashing sand filters
	3.6 Describe the process for cleaning cartridge filters
4. Know the different types of valves commonly used in pool plant operations	4.1 Identify the different types of valves in pool plant operations
5. Understand the concepts of risk and hazard	5.1 Define ‘hazard’
	5.2 Define ‘risk’
	5.3 Explain how to carry out a risk assessment
6. Know the types and the purpose of chemicals used in pools	6.1 List the chemicals used to maintain pool water quality
	6.2 Explain the purpose of the chemicals used to maintain pool water quality
	6.3 Identify the properties of the chemicals used to maintain pool water quality
7. Understand the risks involved in the storage and use of chemicals for the treatment of swimming pool water	7.1 Identify the requirements for safe storage and handling of the chemicals used in the treatment of pool water
	7.2 Recognise the risks of incorrect storage, handling and use of the chemicals used in the treatment of pool water
	7.3 Carry out a risk assessment on the chemical used to disinfect the pool water
8. Understand the importance of effective hydraulic flow of swimming pool water	8.1 Describe the routes by which water circulates from the pool inlets to outlets
	8.2 Explain the reasons for having an efficient surface draw off system in a pool
	8.3 Explain the hazards associated with pool outlets
9. Understand the processes involved in the operation and treatment of spa pools and hot tubs	9.1 Explain the processes involved in the operation and treatment of spa pools and hot tubs
	9.2 Identify the hazards commonly associated with spa pools and hot tubs

Range
1. Understand the processes involved in the treatment of pool water
1.1 Main components of a pool plant to include: • skimmers • strainers • pumps • filters • automatic dosing units • valves • coagulation/flocculation dosing • heat exchanger • chemical injection points.

Unit 03 The management of pool water quality (J/617/7341)

Assessment			
Internally assessed and externally quality assured portfolio of evidence			
Mandatory	**Achieved/not yet achieved**	**Level 3**	**21 GLH**

Learning outcomes (LOs) The learner will:	**Assessment criteria (AC)** The learner can:
1. Understand the importance of safe and effective pool water management	1.1 List the factors which influence pool water management
	1.2 Explain the hazards associated with ineffective pool water treatment
2. Understand the importance of providing a safe and effective pool water disinfection system	2.1 Explain the importance of managing disinfection levels to ensure pool water safety
	2.2 Explain the difference between free chlorine and combined chlorine
	2.3 Describe the chemical reactions which take place when chlorine meets ammonia in pool water
	2.4 Describe the link between pH and the efficiency of disinfection
	2.5 Explain the impact of ultraviolet (UV) on disinfectant levels
	2.6 Describe how brominated systems are used to disinfect pools
3. Understand how the differing properties of the incoming mains water supply affects the treatment of pool water	3.1 Describe the properties of incoming mains water from different sources to include: • surface water • ground water from deep wells and boreholes.
	3.2 Describe the impact of incoming mains water on pool water treatment
4. Understand the factors which influence optimum pool water quality	4.1 Describe the terms: • pH • total alkalinity • calcium hardness • total dissolved solids.
	4.2 Explain why the following are important in maintaining balanced pool water: • pH • total alkalinity • calcium hardness • total dissolved solids.
	4.3 Describe how to alter: • pH • total alkalinity • calcium hardness • total dissolved solids.
	4.4 Calculate the balanced water index and interpret the impact of this on the pool
	4.5 Analyse a range of pool water readings, compare with recommended levels and recommend where improvements can be implemented

Learning outcomes (LOs) The learner will:	**Assessment criteria (AC)** The learner can:
5. Know the legislation, guidance documents and codes of practice which affect pool operations	5.1 List the current legislation and regulations which affect pool operations
	5.2 List the guidance documents and codes of practice which influence the safe operations of the pool environment
	5.3 Explain how health and safety legislation and codes of practice affect working practices in a pool environment
	5.4 State the importance of having **written systems of work**
	5.5 Explain the importance of being able to apply the available guidance in a rational and informed way when deciding on the parameters to be included in the Pool Safety Operating Procedure for a particular pool
6. Understand how to recognise and implement emergency procedures	6.1 Identify a range of emergency procedures that could be used in a pool environment
	6.2 Explain when evacuation of a pool environment would be necessary
	6.3 Explain how to implement the procedure for evacuating the pool environment
	6.4 Explain how to ensure the health and safety of pool users during an evacuation
	6.5 Explain the procedures to be followed in the event of the following incidents in the pool: • faecal • blood • vomiting.
7. Understand the criteria to be considered when designing a pool water treatment plant	7.1 Identify the **critical factors** to be considered when designing a pool water treatment plant
8. Understand the different types of systems used in the disinfection of pool water	8.1 List the factors which influence the choice of disinfectant
	8.2 Describe different types of pool water disinfection systems
9. Understanding the risks and hazards associated with operating pressurised mechanical systems	9.1 Describe the types of pressurised mechanical systems used in pools
	9.2 State the legislation applicable to pressurised mechanical systems used in pools
	9.3 Identify the risks and hazards associated with operating pressurised mechanical systems
10. Understand the processes involved in the operation and treatment of interactive water features	10.1 Define the term ‘interactive water feature’
	10.2 Identify the hazards commonly associated with interactive water features
11. Know the different types of infections associated with poor pool water quality and poor hygiene	11.1 Recognise the different types of infections associated with poor water quality and hygiene
	11.2 Explain how infections are transmitted in a pool environment
	11.3 Explain the measures used to control the transmission of infections
	11.4 Explain the process for carrying out microbiological testing
	11.5 Explain the importance of microbiological testing and the monitoring of results
	11.6 State the acceptable levels of **bacteriological results** for a pool water sample
	11.7 State the bacteriological results which would be considered to be gross contamination

Learning outcomes (LOs) The learner will:	Assessment criteria (AC) The learner can:
12. Understand the principles of heating and ventilating the pool environment	12.1 Describe the processes involved in the heating and ventilating of the pool environment
13. Understand the importance of encouraging the efficient use of energy	13.1 List ways in which pool operators can improve energy efficiency
	13.2 List the systems that can be used to run an economic, energy efficient and effective pool facility
	13.3 Record and review energy usage to improve energy performance

Range
5. Know the legislation, guidance documents and codes of practice which affect pool operations
5.4 Written systems of work to include: • risk assessments • pool safety operating procedures (PSOPs) • normal operating procedures (NOPs) • emergency action plans (EAPs) • pool technical operating procedures (PTOPs).
7. Understand the criteria to be considered when designing a pool water treatment plant
7.1 Critical factors including: • what the pool is used for • programme and bathing load • pool design • turnover period • surface water removal • chemicals • available plant room space.
11. Know the different types of infections associated with poor pool water quality and poor hygiene
11.6 Bacteriological results to include: • Aerobic Colony Count (ACC)/Total Viable Count (TVC) • coliforms • pseudomonas aeruginosa.

NCFE Assessment strategy

The key requirements of the assessment strategies or principles that relate to units in this qualification are summarised below.

The centre must ensure that individuals undertaking assessor or quality assurer roles within the centre conform to the assessment requirements for the unit they are assessing or quality assuring.

Knowledge LOs

- assessors will need to be both occupationally knowledgeable and qualified to make assessment decisions
- internal quality assurers (IQAs) will need to be both occupationally knowledgeable and qualified to make quality assurance decisions.

Competence/skills LOs

- assessors will need to be both occupationally competent and qualified to make assessment decisions
- IQAs will need to be both occupationally knowledgeable and qualified to make quality assurance decisions.

The centre with whom the learners are registered will be responsible for making all assessment decisions. Assessors must be **contracted** to work directly with the centre, contributing to all aspects of standardisation. The centre must ensure a process of training is followed, including during induction and quality assurance activities. Occupationally competent and qualified assessors from the centre must use direct observation to assess practical skills-based outcomes.

Section 3: support

Support materials

The following support materials are available to assist with the delivery of this qualification and are available on the NCFE website:

- Learning resources
- Qualification Factsheet.

Other support materials

The resources and materials used in the delivery of this qualification must be age-appropriate and due consideration should be given to the wellbeing and safeguarding of learners in line with your institute's safeguarding policy when developing or selecting delivery materials.

Products to support the delivery of this qualification may be available. For more information about these resources and how to access them, please visit the NCFE website.

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Appendix A: units

To simplify cross-referencing assessments and quality assurance, we have used a sequential numbering system in this document for each unit.

Mandatory units

Unit number	Regulated unit number	Unit title	Level	GLH
Unit 01	L/617/7339	The principles and practice of pool water treatment and testing	2	20
Unit 02	F/617/7340	The principles of pool plant operations and chemical safety	3	14
Unit 03	J/617/7341	The management of pool water quality	3	21

Change history record

Version	Publication date	Description of change
AIQ005771	June 2019	Document published.
AIQ007216	May 2026	Updates made to assessment method; the units are assessed by an internally assessed and externally quality assured portfolio of evidence. Minor wording updates have been made to assessment criteria (ACs) across all units to improve clarity and consistency. No changes to learning outcomes (LOs), unit structure or content requirements. Guided learning hours (GLH) have been updated from 26 to 55. Total qualification time (TQT) has been updated from 53 to 81.
v2.0	November 2026	Qualification title changed and template updated to new version.