



### **Qualification Specification**

# ICTQual AB Level 3 Certificate in Quality Control Telecom





### **ICTQual AB's**

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### **Qualification Specification about**

## ICTQual AB Level 3 Certificate in Quality Control Telecom

#### About ICTQual AB's

ICTQual AB is a distinguished awarding body based in the United Kingdom, dedicated to fostering excellence in education, training, and skills development. Committed to global standards, ICTQual AB's provides internationally recognized qualifications that empower individuals and organizations to thrive in an increasingly competitive world. Their offerings span diverse industries, including technical fields, health and safety, management, and more, ensuring relevance and adaptability to modern workforce needs.

ICTQual AB's delivers high-quality educational solutions through a network of Approved Training Centres worldwide. Their robust standards and innovative teaching methodologies equip learners with practical knowledge and skills for personal and professional growth. With a mission to inspire lifelong learning and drive positive change, ICTQual AB's continuously evolves its programs to stay ahead of industry trends and technological advancements.

#### **Course Overview**

This certificate programme is designed to equip learners with fundamental knowledge and applied skills in quality control processes specific to the telecommunications industry. The course focuses on key telecom infrastructures including fibre optics, copper cabling, mobile towers, network switches, and radio frequency systems. Learners will explore standards-driven approaches for testing, inspecting, and maintaining quality in telecom installations and operations. The course provides an in-depth understanding of quality benchmarks, compliance requirements, fault detection techniques, and documentation practices within telecom environments. Learners will also gain insight into troubleshooting procedures, signal integrity testing, and the coordination required between field engineers, quality inspectors, and network planners.

Key standards and objectives include:

- Comprehend the principles and objectives of quality control in telecom environments.
- Apply inspection and testing techniques on fibre optics, coaxial, and copper cabling systems.
- Verify equipment and system performance against international telecom standards.



- Use tools such as OTDR, splicing machines, and signal testers for quality verification.
- Document quality inspection results accurately using approved formats.
- Support fault reporting, escalation, and rectification processes effectively.
- Promote adherence to telecom health, safety, and quality regulations.

#### **Course Aim:**

The primary aim of this course is to enable learners to understand and apply quality control techniques across various stages of telecom network installation, commissioning, and maintenance. It prepares individuals to identify non-conformities, enforce testing protocols, and ensure that telecom services meet technical, safety, and regulatory standards.

#### For Whom This Course Is For:

This course is designed for learners who are interested in starting or advancing their careers in the telecommunications industry, particularly in the area of quality control. It is ideal for individuals seeking to develop technical knowledge and practical skills related to telecom systems testing, inspection, and compliance.



#### **Certification Framework**

Qualification title	ICTQual AB Level 3 Certificate in Quality Control Telecom	
Course ID	QC0014	
Grading Type	Pass / Fail	
<b>Competency Evaluation</b>	Coursework / Assignments / Verifiable Experience	
Assessment	The assessment and verification process for ICTQual AB's qualifications involves two key stages:	
	<ul> <li>Internal Assessment and Verification:         <ul> <li>✓ Conducted by the staff at the Approved Training Centre (ATC) to ensure learners meet the required standards through continuous assessments.</li> <li>✓ Internal Quality Assurance (IQA) is carried out by the centre's IQA staff to validate the assessment process.</li> </ul> </li> <li>External Quality Assurance:         <ul> <li>✓ Managed by ICTQual AB's verifiers, who periodically review the centre's assessment and IQA processes.</li> <li>✓ Verifies that assessments are conducted to the required standards and ensures consistency across centres</li> </ul> </li> </ul>	

#### **Entry Requirements**

To enroll in the ICTQual AB Level 3 Certificate in Quality Control Telecom, learners must meet the following requirements:

#### Minimum Age:

Learners must be at least 18 years of age at the time of registration. This ensures a level of maturity and readiness to engage with both the theoretical and practical elements of the course.

#### • Educational Background:

A minimum of a Level 2 qualification (or equivalent) in a relevant subject such as engineering, telecommunications, electronics, or ICT is recommended. Learners with GCSEs (or equivalent) in English, Mathematics, and Science will find this particularly beneficial for understanding the technical content of the course.

#### • Industry Experience:

While prior experience in the telecommunications or engineering sector is not mandatory, it is highly advantageous. Learners with experience in roles such as telecom technician, network support, field engineering, or quality control will be better positioned to apply the course content to real-world scenarios and may find the assessments more accessible.

These entry requirements are designed to ensure that learners can effectively engage with the curriculum and gain maximum value from the qualification. Prospective learners who do not meet the exact criteria but possess related skills or experience are encouraged to consult with their chosen training provider, as alternative pathways or preparatory support may be available.



#### **Qualification Structure**

This qualification comprises 3 mandatory units. Candidates must successfully complete all mandatory units to achieve the qualification.

Mandatory Units	
Unit Ref#	Unit Title
QC0014-01	Fundamentals of Quality Control in Telecommunications
QC0014-02	Telecom Systems Testing and Fault Diagnosis
QC0014-03	Health, Safety, and Regulatory Compliance in Telecom Operations

#### **Centre Requirements**

To ensure quality training delivery, centres must adhere to the following standards:

#### 1. Centre Approval

- ✓ Centres must be formally approved by ICTQual AB's before delivering this qualification.
- ✓ Approval involves a review of facilities, policies, and staff qualifications.

#### 2. Qualified Staff

- ✓ **Tutors:** Must hold a relevant qualification in telecommunications engineering or electronic communication systems at Level 5 or above
- ✓ Assessors: Must hold a recognized assessor qualification (e.g., CAVA, AVRA) or equivalent)
- ✓ Internal Quality Assurers (IQAs): Must hold a recognized IQA qualification (e.g. Level 4 Award in the IQA and Level 4 Certificate in Leading the IQA) and experience to oversee assessment standards.

#### 3. Learning Facilities

#### Centre must offer:

- ✓ Private study areas and internet-enabled workspaces (for blended or physical delivery)
- ✓ Academic and pastoral support for learners
- ✓ Administrative support must be available to manage enrolment, tracking, and learner queries efficiently

#### 4. Health and Safety Compliance

- ✓ All training facilities must comply with health and safety regulations.
- ✓ Centres must conduct regular risk assessments for practical activities.

#### 5. Learning Resources

✓ **Course Materials:** Approved textbooks, study guides, and digital content must align with the qualification standards.



- ✓ Assessment Tools: Templates and guidelines must be provided to ensure standardized evaluation processes.
- ✓ **E-Learning Support:** Centres offering online or blended learning must implement an effective Learning Management System (LMS).

#### 6. Assessment and Quality Assurance

- ✓ Centres must ensure assessments meet ICTQual AB's competency standards.
- ✓ Internal quality assurance (IQA) must be conducted to maintain consistency.
- ✓ External verifiers from ICTQual AB's will review assessment and training practices.

#### 7. Learning Support

- ✓ **Qualification Guidance:** Support for coursework and assignments.
- ✓ Career Pathway Assistance: Information on progression opportunities in sustainability and energy sectors.
- ✓ **Accessibility Support:** Accommodations for learners with disabilities or language barriers.

#### 8. Policies and Compliance

Centres must uphold the following policies in accordance with ICTQual AB's standards:

- ✓ Equality, Diversity, and Inclusion Policy.
- ✓ Health and Safety Policy.
- ✓ Safeguarding and Learner Protection Policy.
- ✓ Complaints and Appeals Procedure.
- ✓ Data Protection and Confidentiality Policy.

#### 9. Reporting Requirements

- Centres must provide ICTQual AB's with regular reports on learner registrations, progress, and certification outcomes.
- Assessment records must be maintained for external auditing and quality assurance purposes.



#### **Support for Candidates**

Centres should ensure that materials developed to support candidates:

- ✓ Facilitate tracking of achievements as candidate's progress through the learning outcomes and assessment criteria.
- ✓ Include information on how and where ICTQual AB's policies and procedures can be accessed.
- ✓ Provide mechanisms for Internal and External Quality Assurance staff to verify and authenticate evidence effectively.

This approach ensures transparency, supports candidates' learning journeys, and upholds quality assurance standards.

#### **Assessment**

This qualification is competence-based, requiring candidates to demonstrate proficiency as defined in the qualification units. The assessment evaluates the candidate's skills, knowledge, and understanding against the set standards. Key details include:

#### 1. Assessment Process:

- ✓ Must be conducted by an experienced and qualified assessor.
- ✓ Candidates compile a portfolio of evidence that satisfies all learning outcomes and assessment criteria for each unit.

#### 2. Types of Evidence:

- ✓ Observation reports by the assessor.
- ✓ Assignments, projects, or reports.
- ✓ Professional discussions.
- ✓ Witness testimonies.
- ✓ Candidate-produced work.
- ✓ Worksheets.
- ✓ Records of oral and written questioning.
- ✓ Recognition of Prior Learning (RPL).

#### 3. Learning Outcomes and Assessment Criteria:

- ✓ **Learning Outcomes:** Define what candidates should know, understand, or accomplish upon completing the unit.
- ✓ **Assessment Criteria:** Detail the standards candidates must meet to demonstrate that the learning outcomes have been achieved.

This framework ensures rigorous and consistent evaluation of candidates' competence in line with the qualification's objectives.



#### **Unit Descriptors**

#### QCoo14-01-Fundamentals of Quality Control in Telecommunications

This unit introduces learners to the basic ideas and importance of quality control in the telecom industry. It explains how quality control helps ensure that telecom services are reliable, safe, and meet customer needs. Learners will explore the role of a quality control technician, including tasks like checking installations, spotting problems early, and making sure work follows set standards.

Learning Outcome:	Assessment Criteria:
Understand the core principles and objectives of quality control in telecom environments	<ul> <li>1.1 Describe the main principles of quality control in a telecommunications context.</li> <li>1.2 State the primary objectives of applying quality control to service delivery.</li> <li>1.3 Provide examples of how quality control prevents issues in a telecom network.</li> <li>1.4 Explain the difference between proactive and reactive quality control measures.</li> </ul>
2. Identify key components of quality assurance frameworks used in the telecommunications industry	<ul> <li>2.1 List three key components of a typical quality assurance framework.</li> <li>2.2 Explain the function of each component in maintaining standards.</li> <li>2.3 Give an example of a quality assurance standard used in the telecommunications industry.</li> <li>2.4 Match components of a framework to their purpose in a given scenario.</li> </ul>
3. Apply quality control techniques to monitor and improve service performance	<ul> <li>3.1 Use a specified quality control checklist to monitor network performance data.</li> <li>3.2 Propose a specific technique to improve performance based on a given set of results.</li> <li>3.3 Describe how to collect feedback from users to measure service quality.</li> <li>3.4 Explain the steps for a quality audit on a small-scale telecom system.</li> <li>3.5 Select the correct quality control technique for a given problem.</li> </ul>



4. Recognize common quality-related issues in civil works and how to prevent them.

- 4.1. Describe how regular quality checks help increase customer satisfaction.
- 4.2. Explain the connection between service quality and customer loyalty.
- 4.3. Identify how quality control helps reduce operational costs.
- 4.4. Provide examples of how an efficient quality process can speed up problem resolution.



#### QC0014-02-Inspection and Testing of Construction Materials

This unit teaches learners how to test telecom systems and find faults. It covers the main tools and techniques used to check if cables, signals, and equipment are working correctly. Learners will practise testing methods on fibre optic cables, copper wires, and telecom equipment using simple devices such as OTDRs, multimeters, and signal testers.

Learning Outcome:	Assessment Criteria:
Demonstrate the ability to perform basic testing procedures on telecom systems and equipment	<ul> <li>1.1 Follow a standard procedure to test a wired network connection.</li> <li>1.2 Perform a signal strength test on a piece of wireless equipment.</li> <li>1.3 Correctly carry out a loopback test on a telecom device.</li> <li>1.4 Use a multimeter to perform a continuity check.</li> <li>1.5 List the necessary tools and equipment for a given test procedure.</li> </ul>
Identify and interpret common faults in wired and wireless telecom infrastructures	<ul> <li>2.1 State a common fault for a described symptom, such as a dropped call or a slow connection.</li> <li>2.2 Explain the potential cause of a common fault in a wired network.</li> <li>2.3 Identify physical signs of a fault in a wireless network component.</li> <li>2.4 Explain what a specific error message means in a diagnostic log.</li> </ul>
3. Use diagnostic tools and techniques to troubleshoot performance issues	<ul> <li>3.1 Use a ping test to check network latency.</li> <li>3.2 Apply a troubleshooting technique to resolve a slow data speed issue.</li> <li>3.3 Locate the source of a network problem using a cable tester.</li> <li>3.4 Use a diagnostic tool to check for packet loss.</li> <li>3.5 Describe a troubleshooting flow to follow for a new problem.</li> </ul>



4. Record and report test results accurately according to industry standards

- 4.1 Complete a test report with all the required information.
- **4.2** Record test results using a clear and easy-to-read format.
- 4.3 Provide a summary of the test findings in a report.
- 4.4 Explain the importance of accurate record-keeping for future maintenance tasks.



#### QC0014-03- Health, Safety, and Regulatory Compliance in Telecom Operations

This unit focuses on staying safe while working in telecom jobs and following the rules set by telecom authorities. Learners will study safety procedures for working on towers, rooftops, or underground cable areas. They will also learn how to use personal protective equipment (PPE), handle tools safely, and follow emergency steps in case of accidents.

emergency steps in case of accidents.		
Learning Outcome:	Assessment Criteria:	
Understand health and safety legislation relevant to telecom environments	<ul> <li>1.1 Identify two pieces of health and safety legislation applicable to a telecom worksite.</li> <li>1.2 Explain why health and safety regulations are important for worker protection.</li> <li>1.3 Describe the responsibilities of an employee and an employer under health and safety rules.</li> <li>1.4 Explain the purpose of a risk assessment.</li> <li>1.5 State the correct procedure for reporting an accident or near-miss.</li> </ul>	
2. Identify workplace hazards and implement appropriate control measures	<ul> <li>2.1 Point out three potential hazards in a given telecom installation scenario.</li> <li>2.2 Describe a control measure for each identified hazard.</li> <li>2.3 Give examples of appropriate Personal Protective Equipment (PPE) for a specific task.</li> <li>2.4 Explain how to correctly store hazardous materials used in telecom work.</li> </ul>	
3. Apply safe working practices during telecom installation and maintenance activities	<ul> <li>3.1 Follow a safe procedure for working at heights, such as on a ladder or mast.</li> <li>3.2 Demonstrate the correct use of Personal Protective Equipment (PPE).</li> <li>3.3 Use lifting and carrying techniques that protect from injury.</li> <li>3.4 Confirm that a work area is safe before starting an installation task.</li> </ul>	
<ol> <li>Ensure compliance with local and international telecom regulations and codes of practice</li> </ol>	<ul><li>4.1 Check a telecom installation against a given regulation checklist.</li><li>4.2 Describe the consequences of non-compliance with a telecom code of practice.</li></ul>	

4.3 Explain the process for obtaining necessary permits for a specific type of installation.4.4 Show how to confirm that equipment meets a

required standard.



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