ICTQual AB

Qualification Specification

ICTQual AB Level 3 Certificate in Quality Control Automotive

Website
www.ictqualab.co.uk

Email:
support@ictqualab.co.uk

ICTQual AB's

Level 3 Certificate in Quality Control Automotive

Contents

Qualification Specification about

ICTQual AB Level 3 Certificate in Quality Control Automotive

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

The ICTQual AB Level 3 Certificate in Quality Control Automotive is a specialized qualification tailored for individuals seeking to build a professional career in the quality assurance sector of the automotive industry. This qualification goes beyond basic theory, focusing on the practical application of quality management principles and techniques crucial for modern automotive manufacturing and maintenance environments. It addresses the need for skilled professionals who can not only identify defects but also understand the underlying processes that cause them, thus contributing to a culture of continuous improvement. This program is designed to provide a comprehensive understanding of the entire quality control lifecycle, from interpreting technical specifications and using precision measurement tools to implementing statistical process control (SPC) and documenting inspection results. By covering these essential skills, the certificate prepares learners to handle a range of tasks, from routine inspections to complex, non-routine problem-solving. It is a recognized credential that validates a professional's expertise in maintaining product integrity and ensuring compliance with stringent industry standards.

Objectives

The main objectives of this qualification are to:

- **Provide a foundation in quality control principles:** Give learners a solid understanding of the fundamental concepts, tools, and methodologies used in automotive quality control.
- **Develop practical skills:** Equip learners with the hands-on abilities to perform inspections, use measurement tools, and interpret technical specifications.
- **Foster problem-solving abilities:** Enable learners to identify quality issues, analyse root causes, and propose effective solutions to address problems that, while well-defined, may be complex and non-routine.
- **Enhance knowledge of industry standards:** Ensure learners are aware of and can apply relevant industry standards, regulations, and quality management systems (e.g., ISO/TS 16949, now IATF 16949).
- **Promote an awareness of different perspectives:** Encourage learners to consider various approaches to quality management within the automotive sector, including statistical process control (SPC) and lean manufacturing principles.

Aims

The aims of this qualification are to:

- Enable individuals to acquire the factual, procedural, and theoretical knowledge needed to perform quality control tasks competently.
- Develop the ability to interpret and evaluate relevant information, such as blueprints, test data, and quality reports.
- Cultivate an awareness of the broader context of the automotive work environment, including the importance of safety, compliance, and customer satisfaction.
- Prepare learners for roles that involve significant responsibility for product quality and process integrity.
- Provide a pathway for career progression in quality assurance, manufacturing, and related fields within the automotive industry.

Target Audience

This qualification is aimed at a diverse group of individuals, including:

- Entry-level quality control technicians and inspectors looking to formalize their skills and gain a recognized qualification.
- Production line workers who are transitioning into a quality-focused role.
- Individuals with some experience in the automotive sector who want to specialize in quality control and assurance.
- Learners at a post-secondary level who are interested in pursuing a career in automotive manufacturing or engineering.
- Experienced professionals who require an updated or specific qualification to meet industry requirements or career advancement goals.

Certification Framework

Qualification title	ICTQual AB Level 3 Certificate in Quality Control Automotive
Course ID	QC0046
Grading Type	Pass / Fail
Competency Evaluation	Coursework / Assignments / Verifiable Experience
Assessment	The assessment and verification process for ICTQual AB's qualifications involves two key stages: **Internal Assessment and Verification:** ✓ Conducted by the staff at the Approved Training Centre (ATC) to ensure learners meet the required standards through continuous assessments. ✓ Internal Quality Assurance (IQA) is carried out by the centre's IQA staff to validate the assessment process. **External Quality Assurance:** ✓ Managed by ICTQual AB's verifiers, who periodically review the centre's assessment and IQA processes. Verifies that assessments are conducted to the required standards and ensures consistency across centres

Entry Requirements

To enrol in ICTQual AB Level 3 Certificate in Quality Control Automotive, learner must meet the following entry requirements:

- **Age Requirement:** Learners must be 18 years of age or older.
- **Educational Background:** A Level 2 qualification in a relevant field (such as automotive technology, mechanical engineering, or quality assurance) is recommended, but not mandatory.
- **Work Experience:** While prior work experience in the automotive or manufacturing industry is beneficial, it is not a compulsory requirement.
- **English Proficiency:** Learners should have a good command of English to understand course materials and complete written assessments.

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**
QC0046-01	Fundamentals of Quality Control in Automotive Manufacturing
QC0046-02	Automotive Parts Inspection and Measurement Techniques
QC0046-03	Safety and Regulatory Compliance in Automotive Quality Systems

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 minimum of a Level 5 qualification in a relevant field (e.g., automotive engineering, mechanical systems) or demonstrable work experience in the automotive or manufacturing sector.
- ✓ **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

QC0046-01- Fundamentals of Quality Control in Automotive Manufacturing

This unit provides an introduction to the core principles and practices of quality control within the automotive industry. Learners will gain factual and theoretical knowledge of quality management systems. The unit covers key methodologies such as Statistical Process Control (SPC) and Lean Six Sigma, enabling them to interpret and evaluate relevant information to address common manufacturing issues. It emphasizes an awareness of different approaches to ensuring product reliability, from raw materials to final assembly, preparing students for quality-focused roles.

Learning Outcome:	Assessment Criteria:
1. Understand the core principles and objectives of quality control in the automotive industry.	1.1 Describe the main goals of quality control in automotive production. 1.2 Explain the difference between quality control and quality assurance. 1.3 Recognize two key principles of quality control, such as continuous improvement. 1.4 Give an example of how quality control benefits both a company and its customers.
2. Identify key quality control processes used in automotive manufacturing environments.	2.1 Identify five different stages in the automotive production process where quality checks are needed. 2.2 List three common quality control processes, such as in-process inspection. 2.3 Describe the purpose of a final vehicle inspection. 2.4 Explain how a quality gate works in a production line. 2.5 Identify the type of quality control process for a given scenario.
3. Demonstrate knowledge of quality control terminology, standards, and procedures.	3.1 Define three standard terms used in automotive quality control. 3.2 Explain the importance of following a documented quality procedure. 3.3 Recognize the meaning of common quality standards, such as ISO 9001. 3.4 Identify the correct procedure for handling a faulty part. 3.5 Explain the role of a quality control checklist.
4. Recognise the importance of maintaining quality across all stages of automotive production.	4.1 Explain why quality is important at the very beginning of the supply chain. 4.2 Describe the risks of letting a faulty part move to the next stage of production. 4.3 Give an example of a problem that could happen if quality is not checked at every stage.

4.4 Identify the role of each person on a team in maintaining quality.
4.5 Summarise the overall benefits of a quality-focused mindset for a company.

QC0046-02- Automotive Parts Inspection and Measurement Techniques

This unit focuses on the practical application of inspection and measurement techniques for automotive components. Learners will develop procedural and theoretical knowledge of a range of tools, including calipers, micrometers, and Coordinate Measuring Machines (CMMs). The unit addresses complex and non-routine problems related to dimensional accuracy and surface finish. Students will learn to interpret and evaluate engineering drawings and specifications, becoming proficient in identifying defects and ensuring parts meet stringent quality standards. This unit is essential for a hands-on role in a quality inspection environment.

Learning Outcome:	Assessment Criteria:
1. Apply standard techniques for inspecting automotive components for defects or irregularities.	1.1 Select the correct inspection method for a given automotive component. 1.2 Perform a visual inspection to find common surface defects. 1.3 Use a template or jig to check the shape of a part. 1.4 Follow a step-by-step process to inspect a part against a checklist. 1.5 Explain how to correctly handle a part to prevent damage during inspection.
2. Use measurement tools and instruments accurately to assess compliance with specifications.	2.1 Select and use a caliper to measure a part's length or diameter. 2.2 Read and record a measurement from a micrometer correctly. 2.3 Explain the proper care and storage of three different measurement tools. 2.4 Check if a part meets a size specification using a go/no-go gauge.
3. Understand tolerance limits and interpret technical drawings for quality assurance purposes.	3.1 Explain what a tolerance limit is. 3.2 Interpret a simple technical drawing to find the required dimensions and tolerances of a part. 3.3 Use a technical drawing to identify the material a part should be made from. 3.4 Compare a measured value to the given tolerance to decide if a part is acceptable. 3.5 Identify the correct symbols on a technical drawing that show flatness or roundness.
4. Record and report inspection results following industry practices.	4.1 Complete an inspection report form with accurate information. 4.2 Record all measurements and observations neatly and clearly. 4.3 Identify the required information to include in a final inspection report.

4.4 Explain the importance of reporting a defect as soon as it is found.

QC0046-03- Safety and Regulatory Compliance in Automotive Quality Systems

This unit explores the critical intersection of quality control and safety regulations in automotive manufacturing. It provides learners with a factual and theoretical understanding of key safety standards, such as those set by the National Highway Traffic Safety Administration (NHTSA). Students will learn to interpret and evaluate compliance requirements and address non-routine problems related to product recalls and liability. The unit fosters an awareness of the nature of the area of work by highlighting the ethical and legal responsibilities inherent in ensuring vehicle safety and adherence to a variety of global regulatory frameworks.

Learning Outcome:	Assessment Criteria:
1. **Understand national and international safety regulations relevant to automotive production.**	1.1 Describe the purpose of a national safety regulation, such as those from the NHTSA. 1.2 Explain the role of an international standard, like ISO 26262, in vehicle safety. 1.3 Recognize how safety regulations protect consumers and road users. 1.4 Identify the main differences between two key regulations.
2. **Identify the role of compliance in maintaining high-quality standards within manufacturing systems.**	2.1 Explain why compliance with regulations is part of a company's quality system. 2.2 Describe the risks to a company that does not follow safety regulations. 2.3 Identify who is responsible for ensuring compliance on the production line. 2.4 Explain the connection between product safety and product quality. 2.5 Summarise the importance of a compliance mindset for all workers.
3. **Implement procedures to ensure adherence to automotive safety and regulatory frameworks.**	3.1 Follow a documented procedure for handling and storing a hazardous material safely. 3.2 Verify that all safety equipment is being used correctly during a task. 3.3 Complete a compliance checklist for a specific production process. 3.4 Explain how to correctly label a product to meet safety requirements.
4. **Recognise potential non-compliance issues and apply corrective actions appropriately.**	4.1 Recognize a simple example of a non-compliance issue, like a missing safety sticker. 4.2 Report a potential non-compliance issue to the correct person. 4.3 Describe two different corrective actions that could be taken after finding a non-compliance issue.

4.4 Explain the importance of documenting all non-compliance issues and corrective actions.

ICTQual AB

Yew Tree Avenue, Dagenham,

London East, United Kingdom RM10 7FN

+447441398083

support@ictqualab.co.uk|www.ictqualab.co.uk

VisitOfficialWebpage