

# ASQ Introduction to Quality Engineering Course

## Venue Information

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**Venue:** London UK

**Place:**

**Start Date:** 2025-07-14

**End Date:** 2025-07-18

## Course Details

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**Net Fee:** £4750.00

**Duration:** 1 Week

**Category ID:** QAPC

**Course Code:** QAPC-12

## Syllabus

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### Course Syllabus

#### Introduction

##### Who should attend:

Engineers, quality control personnel, inspectors, testing personnel, or those interested in the quality engineering profession.

##### Objectives

- Define basic quality management principles.
- Discuss the relationship of the quality engineer to the quality system.
- Analyze the relationship of statistics to a process.
- Use process capability and statistical process control to monitor a process.
- Generate acceptance sampling plans and identify and use technical quality tools.

plans, acceptance sampling, and attribute controls.

## **Content**

### **Overview of Management and Leadership Principles**

- Quality Philosophies and Foundations
- The Quality Management System (QMS)
  - Strategic Planning
  - Deployment Techniques
  - Quality Information System (QIS)
- Facilitation Principles and Techniques
- Customer Relations
- Supplier Management

### **The Quality System**

- Elements of the Quality System
- Documentation of the Quality System
- Quality Standards and Other Guidelines
- Quality Audits
- Cost of Quality (COQ)
- Quality Training

### **Product and Process Design**

- Classification of Quality Characteristics
- Design Inputs and Review
- Reliability and Maintainability

### **Product and Process Control**

- Tools
- Material Control
- Acceptance Sampling
- Measurement System Analysis (MSA) and Metrology

### **Continuous Improvement**

- Quality Control Tools
- Quality Management and Planning Tools
- Continuous Improvement Techniques
- Corrective Action
- Preventive Action

- Graphical Methods for Depicting Relationships
  - Graphical Methods for Depicting Distributions
  - Continuous Distributions
  - Discrete Distributions
- Statistical Decision-Making
  - Point Estimates and Confidence Intervals
  - Hypothesis Testing and Paired-Comparison Tests
- Relationships between Variables
  - Linear Regression and Simple Linear Correlation
- Statistical Process Control (SPC)
  - Objectives and Benefits
  - Common and Special Causes
  - Selection of Variable and Rational Subgrouping
  - Control Charts
- Process and Performance Capability
  - Process Capability Studies and Indices
- Design and Analysis of Experiments
  - Terminology and ANOVA
  - Planning and Organizing Experiments