# Quality Control Tools & Techniques Training Course

Professional Development Training Course Outline

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|---|---|---|---|
| **Category** | Project Management | **Duration** | 10 Days |
| **Base Fee** | $3,000 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Quality Control Tools & Techniques Training Course equips professionals with comprehensive skills to implement, monitor, and optimize quality control systems across manufacturing, service, and operational processes. Emphasizing both practical tools and theoretical frameworks, the course covers statistical process control, root cause analysis, failure mode and effects analysis (FMEA), process mapping, and advanced quality management techniques. Participants will develop proficiency in identifying inefficiencies, reducing defects, and ensuring compliance with international quality standards such as ISO 9001. The course integrates real-world examples, hands-on exercises, and actionable case studies to ensure that learners can immediately apply quality control principles to drive operational excellence and customer satisfaction.

In an increasingly competitive and technology-driven business environment, organizations require robust quality control systems to minimize risks, enhance process efficiency, and improve product reliability. This course addresses these needs by equipping participants with practical tools for continuous quality improvement, problem-solving, and data-driven decision-making. By mastering the full spectrum of quality control techniques, participants will be prepared to implement effective quality assurance frameworks, foster a culture of continuous improvement, and support organizational objectives in manufacturing, services, and business process operations.

## Programme Curriculum

**Quality Control Tools & Techniques Training Course**

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**Course Objectives**

1. Understand the fundamentals and importance of quality control in modern organizations.
2. Apply key quality control tools and statistical techniques in operational processes.
3. Develop process control charts and monitor performance metrics effectively.
4. Identify, analyze, and eliminate process defects using root cause analysis.
5. Conduct Failure Mode and Effects Analysis (FMEA) for risk mitigation.
6. Utilize Six Sigma and Lean principles for continuous quality improvement.
7. Implement standard operating procedures (SOPs) to enhance quality compliance.
8. Optimize supply chain quality management and vendor performance.
9. Integrate data-driven decision-making in quality monitoring systems.
10. Conduct internal audits and performance evaluations to improve compliance.
11. Use process mapping and workflow analysis to streamline operations.
12. Apply benchmarking and industry best practices for superior performance.
13. Foster a culture of quality awareness and continuous improvement among teams.

**Organizational Benefits**

- Improved operational efficiency and process reliability
- Reduced defect rates and waste across production and services
- Enhanced compliance with industry and international quality standards
- Strengthened customer satisfaction and brand reputation
- Increased staff engagement in quality improvement initiatives
- Data-driven decision-making and evidence-based problem-solving
- Enhanced vendor and supply chain performance monitoring
- Consistent product and service delivery across operations
- Cost savings through process optimization and error reduction
- Competitive advantage through superior quality management

**Target Audiences**

- Quality control managers and engineers
- Operations and process improvement specialists
- Production supervisors and manufacturing team leaders
- Service delivery and operational managers
- Compliance and audit professionals
- Supply chain and vendor management personnel
- Business analysts and data-driven decision makers
- Consultants and trainers in quality management systems

**Course Duration:** 10 days

**Course Modules**

**Module 1: Introduction to Quality Control**

- Fundamentals of quality management systems
- History and evolution of quality control methodologies
- Understanding customer requirements and satisfaction metrics
- Introduction to ISO 9001 and international quality standards
- Role of quality control in organizational success
- Case Study: Implementing a quality management system in a manufacturing firm

**Module 2: Statistical Process Control (SPC)**

- Key statistical tools for monitoring processes
- Control charts and process capability analysis
- Sampling methods and data collection techniques
- Identifying process variation and trends
- Monitoring key performance indicators (KPIs)
- Case Study: Reducing defects in a production line using SPC

**Module 3: Root Cause Analysis (RCA)**

- Problem identification and prioritization
- Techniques for determining underlying causes
- Fishbone diagrams, 5 Whys, and cause-effect analysis
- Developing corrective and preventive actions (CAPA)
- Tracking effectiveness of solutions
- Case Study: Resolving recurring product defects using RCA

**Module 4: Failure Mode and Effects Analysis (FMEA)**

- Principles of FMEA and risk assessment
- Identifying potential failure points in processes
- Prioritizing risks based on severity and occurrence
- Developing mitigation strategies and preventive measures
- Documenting and monitoring FMEA results
- Case Study: Risk reduction in a microfinance operations process using FMEA

**Module 5: Lean and Six Sigma Techniques**

- Introduction to Lean principles for waste elimination
- DMAIC framework in Six Sigma methodology
- Applying Lean tools to improve workflow efficiency
- Process optimization using Six Sigma statistical tools
- Enhancing customer satisfaction through Lean Six Sigma
- Case Study: Streamlining a service delivery process using Lean Six Sigma

**Module 6: Process Mapping and Workflow Analysis**

- Creating flowcharts and process diagrams
- Identifying bottlenecks and inefficiencies
- Analyzing process steps for value addition
- Integrating process maps into quality improvement plans
- Optimizing workflows for operational efficiency
- Case Study: Improving loan processing workflow in a microfinance institution

**Module 7: Quality Audits and Compliance**

- Planning and executing internal audits
- Audit checklists and documentation best practices
- Evaluating adherence to standards and SOPs
- Reporting findings and implementing improvements
- Continuous compliance monitoring techniques
- Case Study: Conducting a quality audit in a service-based organization

**Module 8: Supplier and Vendor Quality Management**

- Evaluating supplier capabilities and performance
- Setting quality expectations and contractual agreements
- Conducting supplier audits and performance reviews
- Managing non-conformance and corrective actions
- Strengthening collaboration for quality improvement
- Case Study: Enhancing vendor compliance in a manufacturing supply chain

**Module 9: Data-Driven Quality Decision Making**

- Collecting and analyzing quality data effectively
- Using dashboards and reporting tools for monitoring
- Identifying trends and predictive insights
- Applying statistical techniques for quality forecasting
- Decision-making based on real-time process data
- Case Study: Implementing KPI dashboards for quality control in production

**Module 10: Benchmarking and Best Practices**

- Understanding benchmarking concepts and processes
- Comparing organizational performance against industry standards
- Identifying areas for process improvement
- Integrating lessons from global best practices
- Sustaining continuous improvement initiatives
- Case Study: Benchmarking quality performance in a regional MFI network

**Module 11: Documentation and Standard Operating Procedures**

- Developing SOPs for critical processes
- Maintaining accurate records for compliance and audits
- Implementing version control and document tracking
- Ensuring staff adherence to documented procedures
- Linking SOPs to quality objectives
- Case Study: Creating SOPs to standardize customer service processes

**Module 12: Advanced Quality Tools**

- Pareto charts, histograms, scatter diagrams
- Check sheets, control charts, and process capability indices
- Applying advanced tools to complex process challenges
- Combining multiple tools for robust analysis
- Interpreting results for actionable insights
- Case Study: Using advanced quality tools to reduce loan processing errors

**Module 13: Continuous Improvement Culture**

- Promoting quality awareness across all staff levels
- Encouraging employee involvement in problem-solving
- Rewarding innovation and process improvement initiatives

- Integrating continuous improvement into strategic goals
- Monitoring and sustaining improvement initiatives
- Case Study: Building a continuous improvement program in a service organization

**Module 14: Quality in Digital and Automated Processes**

- Ensuring quality control in digital systems and automation
- Monitoring software processes and workflows
- Integrating quality checks into digital platforms
- Managing risk in automated operational processes
- Using technology for real-time quality monitoring
- Case Study: Ensuring quality in a digitally automated microfinance workflow

**Module 15: Performance Measurement and Reporting**

- Setting quality performance indicators
- Measuring process effectiveness and efficiency
- Reporting tools for management decision-making
- Communicating quality results to stakeholders
- Reviewing performance and identifying improvement opportunities
- Case Study: Developing a quality performance reporting system for management

**Training Methodology**

- Instructor-led presentations with theoretical frameworks
- Hands-on exercises with real-life datasets and scenarios
- Group discussions and peer learning sessions
- Case study analysis for practical application
- Problem-solving workshops and simulations
- Action plan development for implementation in participants' organizations

**Register as a group from 3 participants for a Discount**

**Send us an email: info@fineskilltrainingcenter.org or call** *+254769199797*

***Certification***

*Upon successful completion of this training, participants will be issued with a globally- recognized certificate.*

***Tailor-Made Course***

*We also offer tailor-made courses based on your needs.*

**Key Notes**

**a.** The participant must be conversant with English.

**b.** Upon completion of training the participant will be issued with an Authorized Training Certificate

**c.** Course duration is flexible and the contents can be modified to fit any number of days.

**d.** The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

**e.** One-year post-training support Consultation and Coaching provided after the course.
**f.** Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## Upcoming Scheduled Sessions

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 04 Dec 2026 | Online | $2,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $3,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $6,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $6,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $9,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |

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