

# Fundamentals of Quality Management

## Course Overview

Testing in organizations is commonplace. It is unthought-of to deliver a product, service, or result to a customer without testing or proving the customer requirements are met. However, testing is only an aspect of managing quality. Therefore, in this course you will discover all aspects of quality management through theoretical and practical learning.

### Chapter 1 - Quality Management Fundamentals

1h 15m

Instructor Introduction

Quality Management Introduction (1 of 6)

Quality Management Introduction (2 of 6)

Quality Management Introduction (3 of 6)

Quality Management Introduction (4 of 6)

Quality Management Introduction (5 of 6)

Quality Management Introduction (6 of 6)

Quality Management Fundamentals

Objectives

Topic A: Quality-related Definitions and Concepts

Definition: International Organization for Standardization (ISO)

Concept: ISO 9000

Definition: Quality

Definition: Grade

Quality vs. Grade

Self-Reflection – Quality vs. Grade

Concepts: Prevention and Inspection

Concept: Sampling Theory

Concept: Probability Theory

Concept: Sampling Data Types

Concept: Engineering Tolerance

Concept: Control Limits

Concept: Product Verification

Concept: Customer Satisfaction

Exercise 1.1 – Mapping Quality-related Concepts

Exercise 1.1 – Mapping Quality-related Concepts Worksheet

Exercise 1.1 – Mapping Quality-related Concepts Debrief (1 of 2)

Exercise 1.1 – Mapping Quality-related Concepts Debrief (2 of 2)

Topic B: Maturity and Continuous Improvement Models

Definition: Maturity Models

Definition: Capability Maturity Model Integrated (CMMI)

Capability Maturity Model Integration (CMMI) Core Process Areas

CMMI Appraisal

Definition: Project Management Maturity Model (PMMM)

Concept: Project Management Maturity Model and CMMI

Concept: Continuous Improvement

Concept: Continuous Improvement Models  
Concept: Continuous Improvement Models  
Exercise 1.2 – Application of Maturity and Improvement Models  
Exercise 1.2 – Application of Maturity and Improvement Models Worksheet  
Exercise 1.2 – Application of Maturity and Improvement Models Debrief (1 of 2)  
Exercise 1.2 – Application of Maturity and Improvement Models Debrief (2 of 2)  
Topic C: Quality Theorists and Contributions  
Quality Theorists and Contributions (1 of 9)  
Quality Theorists and Contributions (2 of 9)  
Quality Theorists and Contributions (3 of 9)  
Quality Theorists and Contributions (4 of 9)  
Quality Theorists and Contributions (5 of 9)  
Quality Theorists and Contributions (6 of 9)  
Quality Theorists and Contributions (7 of 9)  
Quality Theorists and Contributions (8 of 9)  
Quality Theorists and Contributions (9 of 9)  
Self-Reflection – Quality Theorists and Contributions  
Chapter 1 Review

## **Chapter 2 - Quality Management Planning**

1h 5m

Quality Management Planning  
Objectives  
Topic A: Quality Management Corporate Policy  
Concept: Quality Management Corporate Policy (1 of 2)  
Concept: Quality Management Corporate Policy (2 of 2)  
Quality Management Corporate Policy - A Case Study  
Quality Management Corporate Policy Objectives  
A-Z's Quality Management Corporate Policy Outline (1 of 3)  
A-Z's Quality Management Corporate Policy Outline (2 of 3)  
A-Z's Quality Management Corporate Policy Outline (3 of 3)  
Self-Reflection – Quality Management Corporate Policy  
Topic B: Project Quality Management Planning – Part 1  
Project Quality Management Plan Case Study  
Project Quality Management Plan – Part 1  
Project Management Performance Baseline Project Quality Policy  
Project Management Performance Baseline Project QA Approach  
Project Management Performance Baseline Project QC Approach  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Worksheet (1 of 3)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Worksheet (2 of 3)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Worksheet (3 of 3)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Debrief (1 of 4)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Debrief (2 of 4)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Debrief (3 of 4)  
Exercise 2.1 – Project Management Performance Baseline Project Quality Management Plan – Part 1 Debrief (4 of 4)  
Topic C: Project Quality Management Planning – Part 2  
Project Quality Management Plan – Part 2  
Project Quality Objectives  
Project Quality Standards  
Project Quality Roles and Responsibilities Examples

Self-Reflection – Deliverables Subject to Reviews and Tests

Directive on Audits and Reviews

Quality Management Tools and Techniques

Cost of Quality (CoQ) (1 of 2)

Cost of Quality (CoQ) (2 of 2)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Worksheet (1 of 5)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Worksheet (2 of 5)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Worksheet (3 of 5)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Worksheet (4 of 5)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Worksheet (5 of 5)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (1 of 6)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (2 of 6)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (3 of 6)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (4 of 6)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (5 of 6)

Exercise 2.2 – Project Management Performance Baseline Project Quality Management Plan – Part 2 Debrief (6 of 6)

Chapter 2 Review

### **Chapter 3 - Quality Management Implementation**

39m

Quality Management Implementation

Objectives

Topic A: Quality Management Implementation

Self-Reflection – Quality Management Implementation

Quality Management Implementation

Quality Management Implementation Activities

Concept: Data, Information, Knowledge, Wisdom (DIKW) Model

Quality Management Implementation Activities

Self-Reflection – Quality Management Implementation Activities

Project Management Performance Baseline Project Quality Management Implementation

Topic B: Quality Assurance Activities

Quality Assurance Data Collection (1 of 4)

Quality Assurance Data Collection (2 of 4)

Quality Assurance Data Collection (3 of 4)

Quality Assurance Data Collection (4 of 4)

Exercise 3.1 – Describe QA Data Collection

Exercise 3.1 – Describe QA Data Collection Worksheet

Exercise 3.1 – Describe QA Data Collection Debrief (1 of 2)

Exercise 3.1 – Describe QA Data Collection Debrief (2 of 2)

Quality Assurance Data Representation (1 of 6)

Quality Assurance Data Representation (2 of 6)

Quality Assurance Data Representation (3 of 6)

Quality Assurance Data Representation (4 of 6)

Quality Assurance Data Representation (5 of 6)

Quality Assurance Data Representation (6 of 6)

Exercise 3.2 – Describe QA Data Representation

Exercise 3.2 – Describe QA Data Representation Worksheet

Exercise 3.2 – Describe QA Data Representation Debrief (1 of 2)

Exercise 3.2 – Describe QA Data Representation Debrief (2 of 2)

Quality Assurance Data Analysis

Quality Assurance Review QC Results  
Quality Assurance Audits  
Quality Assurance Change Control  
Exercise 3.3 – QA Schedule Data Analysis  
Exercise 3.3 – QA Schedule Data Analysis Worksheet  
Exercise 3.3 – QA Schedule Data Analysis Debrief (1 of 2)  
Exercise 3.3 – QA Schedule Data Analysis Debrief (2 of 2)  
Topic C: Quality Control Activities  
Quality Control Document Reviews  
Quality Control Tests  
Quality Control Defect Repair  
Quality Control Document Findings  
Quality Control Change Control  
Exercise 3.4 – Document a QC Change Request  
Exercise 3.4 – Document a QC Change Request Worksheet  
Exercise 3.4 – Document a QC Change Request (Debrief 1 of 2)  
Exercise 3.4 – Document a QC Change Request (Debrief 2 of 2)  
Chapter 3 Review

#### **Chapter 4 - Quality Management Improvement**

55m

Quality Management Improvement  
Objectives  
Topic A: Quality Audits  
Concept: Quality Audit  
Clause-based Quality Audit  
Process-based Quality Audit  
5 Step Process-based Quality Audit  
Self-Reflection – Quality Audit Steps  
Process-based Quality Audit – Step 1  
Process-based Quality Audit – Step 2 (1 of 2)  
Process-based Quality Audit – Step 2 (2 of 2)  
Process-based Quality Audit – Step 3  
Process-based Quality Audit – Step 4 (1 of 2)  
Process-based Quality Audit – Step 4 (2 of 2)  
Process-based Quality Audit – Step 5  
Exercise 4.1 – Perform a Process-based Audit  
Exercise 4.1 – Perform a Process-based Audit Scenario  
Exercise 4.1 – Perform a Process-based Audit Worksheet  
Exercise 4.1 – Perform a Process-based Audit Debrief (1 of 4)  
Exercise 4.1 – Perform a Process-based Audit Debrief (2 of 4)  
Exercise 4.1 – Perform a Process-based Audit Debrief (3 of 4)  
Exercise 4.1 – Perform a Process-based Audit Debrief (4 of 4)  
Benefits of Performing a Quality Audit  
Topic B: Quality Management Improvement  
Quality Management Improvement  
Concept: Kaizen “Improvement”  
Quality Improvement via Kaizen (1 of 6)  
Quality Improvement via Kaizen (2 of 6)  
Quality Improvement via Kaizen (3 of 6)  
Quality Improvement via Kaizen (4 of 6)

Quality Improvement via Kaizen (5 of 6)  
Quality Improvement via Kaizen (6 of 6)  
Exercise 4.2 – Improve Reporting Process, via Kaizen  
Exercise 4.2 – Improve Reporting Process, via Kaizen Scenario  
Exercise 4.2 – Improve Reporting Process, via Kaizen Worksheet  
Exercise 4.2 – Improve Reporting Process, via Kaizen Debrief (1 of 3)  
Exercise 4.2 – Improve Reporting Process, via Kaizen Debrief (2 of 3)  
Exercise 4.2 – Improve Reporting Process, via Kaizen Debrief (3 of 3)  
Benefits of Practicing Continuous Improvement on Projects  
Chapter 4 Review  
Quality Management Summary  
Course Overview  
Definition: International Organization for Standardization (ISO)  
Definition: Quality and Grade  
Concept: Continuous Improvement  
Quality Contributors  
Concept: Quality Management Corporate Policy  
Project Quality Management Plan  
Quality Management Implementation  
Quality Management Implementation Activities  
Quality Management Implementation Activities  
Concept: Quality Audit  
5 Step Process-based Quality Audit  
Benefits of Performing a Quality Audit  
Concept: Kaizen “Improvement”  
Quality Improvement via Kaizen  
Benefits of Practicing Continuous Improvement on Projects  
Quality Management Objectives (1 of 3)  
Quality Management Objectives (2 of 3)  
Quality Management Objectives (3 of 3)

**Total Duration: 3h 54m**