

# SOFTWARE QUALITY ASSURANCE: IMPLEMENTING CONSISTENT QUALITY

Course number : 134

## Overview

Improve customer satisfaction and achieve consistent quality with this quality assurance training. In this course, you learn to define, design, and effectively lead Quality Assurance (QA) activities using proven techniques tailored for your life cycle model — such as conducting reviews, walkthroughs, inspections, and audits, and controlling major components using Configuration Management (CM) practices.

## What you'll learn

- Implement and effectively lead Quality Assurance (QA) activities
- Write a QA plan and conduct audits
- Design metrics for your project
- Determine which life cycle model to apply

## Who should attend

## Pre-requis

- Familiarity with project activities or software development

**Activities in this course are aligned with SEI CMMI, ISO 9001, and IEEE**

## Outline

### [Introduction to Quality Assurance](#)

- Contrasting roles: Quality Assurance, Testing, Verification and Validation
- Comparing software development life cycles
- Documenting processes
- Defining the goals of Quality Assurance

## Quality Assurance Components

### **Analyzing the components of quality**

- Creating processes
- Choosing the best practices and implementing process improvement initiatives
- Comparing Agile and traditional QA roles and methods

### **Implementing a road map**

- IEEE
- CMMI
- ISO 9001
- Selecting and documenting standards
- Participating in reviews and audits
- Maintaining records

## Planning for Quality Assurance

### **Applying verification and validation techniques for error detection**

- Evaluating verification and validation techniques
- Analyzing life cycle products
- Implementing a QA policy and plan
- Exploring testing levels

### **Detecting defects while applying inspection techniques**

- Defining the inspection process
- Planning and conducting an inspection
- Communicating inspection results

## Conducting Audits

### **The types of audits**

- Comparing process, product and projects
- Implementing quality system and configuration audits
- Documenting audit findings in a report

### **Comparing industry standards**

- Complying with industry standards and models: ISO 9001 and CMMI
- Comparing the work products against industry best practices

### **Initiating the auditing process**

- Planning and preparing for the audit
- Reporting the results
- Monitoring noncompliance

### **Participating in an audit**

- Reviewing documentation
- Documenting and confirming audit findings
- Presenting audit findings

## **Applying Configuration Management (CM)**

### **Defining the components of a CM system**

- Identifying the workflow and work products
- Assessing and managing components with release management
- Communicating product status using reports

### **Managing and controlling products for consistency**

- Controlling QA and/or test plans
- Monitoring quality reports, audit findings and peer review documentation

## **Continuous Process Improvement**

### **Fostering learning through process improvement**

- Defining and implementing process improvement
- Planning process improvement initiatives

### **Achieving excellence through metrics**

- Selecting and analyzing metrics
- Communicating organizational progress

### **Analyzing data through root cause analysis**

- Determining the possible causes of problems utilizing a Fishbone diagram
- Narrowing down the correct course of action by creating a Pareto Analysis diagram
- Examining flow charts during the root cause analysis process

### **Coordinating the next steps**

- Implementing corrective actions
- Focusing on prevention techniques

## **Schedule**

**Location Dates Status**

## **Tuition**

**IN CLASSROOM OR ONLINE PRIVATE TEAM TRAINING**

**STANDARD \$3895**

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## **FAQ**

## **Certification**