

Software Quality Assurance: Implementing Consistent Quality

Course: **00033**

Filter: **Beginner**

Duration: **20 hours**

Category:: **Programming**

Price: **1500,00 €**

About Course

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

Pre-requisites

- Familiarity with project activities or software development

Curriculum

Module 1: 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

Module 2: Quality Assurance Components

- Creating processes
- Choosing the best practices and implementing process improvement initiatives
- Comparing Agile and traditional QA roles and methods
- IEEE
- CMMI
- ISO 9001
- Selecting and documenting standards
- Participating in reviews and audits
- Maintaining records

Module 3: Planning for Quality Assurance

- Evaluating verification and validation techniques
- Analyzing life cycle products
- Implementing a QA policy and plan
- Exploring testing levels
- Defining the inspection process
- Planning and conducting an inspection
- Communicating inspection results

Module 4: Conducting Audits

- Comparing process, product and projects
- Implementing quality system and configuration audits
- Documenting audit findings in a report
- Complying with industry standards and models: ISO 9001 and CMMI
- Comparing the work products against industry best practices
- Planning and preparing for the audit
- Reporting the results

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

Module 5: Applying Configuration Management (CM)

- Identifying the workflow and work products
- Assessing and managing components with release management
- Communicating product status using reports
- Controlling QA and/or test plans
- Monitoring quality reports, audit findings and peer review documentation

Module 6: Continuous Process Improvement

- Defining and implementing process improvement
- Planning process improvement initiatives
- Selecting and analyzing metrics
- Communicating organizational progress
- 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
- Implementing corrective actions
- Focusing on prevention techniques