

## **Course 314: Software Inspection Workshop**

**(2 days)**

### **Course Description...**

The software engineering process entails a variety of verification and validation (V&V) techniques to elevate the user's confidence that the delivered software meets its requirements and is constructed in accordance with its design. Software inspection, which identifies and removes defects early in the software engineering life cycle, is unquestionably a cost-effective adjunct to testing, which is conducted in the later stages of the life cycle. This course, describing the software inspection process in detail, includes an *inspection workshop*, based on case study documentation or on documentation submitted by the client organization, giving the students concrete experience with the techniques. The course is intended for anyone whose work is likely to be subject to inspection and anyone who is likely to help inspect the work of others.

### **Learning Objectives...**

- Understand the role of inspections in reducing the defect density of delivered software as an adjunct to the testing process.
- Discuss the roles and skills of participants in the inspection process.
- Understand how to conduct each step in the inspection process.
- Explore the use of checklists and the traceability matrix as inspection tools.
- Gain experience in participating in the inspection process.

### **Who should attend...**

Audience includes software process engineers, quality assurance professionals, project managers, and software practitioners, with an interest in participating in inspection to help their organizations reduce cost and yet produce higher quality software products at the same time.

### **Prerequisites...**

No specific prerequisites are needed.

**See next page for a detailed course outline...**



## Course Outline...

### Introduction and Overview

Course Objectives

### Chapter 1: Introduction

Chapter Objectives

#### Inspection Concepts

- Definitions
- Inspection in the software life cycle
- Benefits of early inspection
- Need for management commitment

#### Static Verification & Validation Process Types

- Informal and formal reviews
- Technical reviews
- Management reviews
- Audits
- Walkthroughs
- Inspections
- Matching review types to objectives
- Testing vs. inspection

#### Chapter Summary and Best Practices

### Chapter 2: Inspection Procedures

Chapter Objectives

#### Overview of the Inspection Process

- Context
- Information flow
- Inspection cycles
- Inspection starting point

#### Inspector Roles

- Leader and Moderator
- Editor and Author
- Checker and Specialist
- Reader and Scribe

#### Process Steps

- Entry
- Kickoff meeting
- Individual checking
- Edit
- Follow-up
- Exit
- Forms and reports

#### Chapter Summary and Best Practices



## Chapter 3: Details of the Individual Checking Process

Chapter Objectives

### Checking process concepts

- What to look for
- Checker choices and constraints
- Inspector roles in checking process

### Inspection Checklists

- Checklist purpose and scope
- Checklist usage
- Sources of checklist information
- Checklist evolution
- Rules and checklists
- Checklist structure
- Examples for various work products

### Traceability

- Tracing the requirements
- Where traceability can be used
- Using the traceability matrix in impact assessment
- Multi-level traceability
- Creating the traceability matrix
- Identifying defects

### Chapter Summary and Best Practices

## Chapter 4: Class Workshop

*Conducting an inspection of case study documentation or client-furnished material*

## Chapter 5: The Bottom Line

Course summary

Students' perspectives

***Please contact your ROI representative to discuss course tailoring!!!***