eogogicsinc

Course ID	Course Title
SWQA	**Software Quality Assurance**
Course Duration	
1 day	

Related Courses

- Principles of Software Engineering (SWENG1, 2 days)
- Software Engineering: An Advanced Tutorial (SWENG2, 3 days)
- Effective Software Testing (SWT, 2 days)
- Software Configuration Management (SWCM, 2 days)
- Software Project Management (SWPM, 2 days)
- Software Project Estimation (SWPE, 2 days)

Aimed At

Information Technology (IT) practitioners, including quality assurance specialists, analysts, developers, and managers with current or near-future quality assurance responsibilities

Group Size

5-25

Prerequisites

None

Course in a Nutshell

Unlike testing, software quality assurance starts even before a project begins, by ensuring that solid, workable development processes are in place and understood by everyone concerned. Software Quality Assurance (SQA) also encompasses an auditing function to ensure that those processes are being followed when the project does finally launch as well as a metrics function to measure the effectiveness of the processes and the quality of the products that emerge.

Customize It!

- Is your organization primarily interested in the software process? We can create a version of the course that addresses software processes in detail.
- Similarly, we can orient the course toward the auditing process, or toward the metrics process.
- Does your organization view Software Quality Assurance primarily in terms of verification and validation? We can focus the course on the Verification and Validation activities, which comprise a subset of the development process.

Learn How To

- Design and implement software development and maintenance processes
- Design and implement meaningful software metrics
- Conduct process audits
- Place software quality assurance at the proper level in the organization

Course Outline

- Introduction
  - Software Quality Assurance (SQA) goals
  - Definitions of quality and quality assurance
  - Contrasting SQA and testing
  - Where SQA fits in the organization
  - Writing the SQA plan
  - SQA standards

- Software Life Cycle Processes
  - Incremental and iterative software development
  - Incremental and iterative software maintenance
  - Waterfall-based and agile methods
  - Approaches to process improvement
  - SQA role in establishing and improving processes

- Software Audits
  - How to conduct an audit
  - Scheduled and ad hoc audits
  - Using audit results
  - SQA role in the audit process

- Software Quality Metrics
  - Measures and metrics
  - Process and product metrics
  - Goal-Question-Metric paradigm
  - SQA role in the metrics process

- Course Summary
  - Lessons learned
  - Where to go from here

How You Will Learn

- A seasoned instructor and IT practitioner will present this course in interactive lecture format
- Along with the lecture, we will use exercises, workshops, and interesting group activities to enrich the instruction and drive home the essential points.
- You will receive a printed Participant Handbook to help you remember and retain what you learned in class and apply it on your job.

Revised   *May 3, 2008f*