

UP System Information Technology Foundation, Inc. Rm. 303 Vidal A. Tan Hall, Quirino Ave., cor. Velasquez St., UP Diliman, Q.C. Tel. 436-2217 I Telefax: 920-2036 upsitf.org I info@upsitf.org

Course Title: Software Quality Assurance

Duration: Five (5) Days

Class Schedule: 9:00am to 5:00pm

Target Participants: Government and Private I.T. Personnel, Members of the

Academe and College Graduates of Computer Science

and I.T. related courses.

Total Hours: 35 Hours

Text: Galin, Daniel, (2004). Software Quality Assurance: From

Theory to Implementation, Addison Wesley

Additional readings to be provided

Course Description: This class covers the principles of software

development emphasizing processes and activities of quality assurance. The course will cover methods and tools for achieving software quality assurance at various levels of a software system including at the module, subsystem, and system levels. State of the art tools and techniques including inspections, version control, and configuration management will be covered. Also, the role of standards, policies, and procedures will be discussed. The course will prepare students to develop a software quality assurance program in a structured and organized way. This course will also provide practical knowledge of a variety of quality assurance techniques, and an understanding of some of the tradeoffs between

techniques.

Course Objectives: Upon successful completion of this course the student will be able to:

- Understand the quality assurance context.
- Understand SQA projects.
- Understand SQA management.
- Understand SQA management organization.
- Understand SQA standards.

Course Outline:

- The Software Quality Challenge
- What is Software Quality?
- Software Quality Factors
- Components of SQA System



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- Contract Review
- Development and Quality Plans
- Integrating Quality Activities in the Project Life Cycle
- Software Testing Strategies
- Software Testing Implementation
- Assuring the Quality of Software Maintenance Components
- Assuring the Quality of External Participants' Contributions
- Procedures and Work Instructions
- Supporting Quality Devices
- Staff Training and Certification
- Corrective and Preventive Actions
- Configuration Management
- Documentation Control
- Project Progress Control
- Software Quality Metrics
- Cost of Software Quality

