

## Software Quality Assurance

### Brief Course Description:

What is the role of software quality assurance today? This course examines the emerging role of the SQA professional as a key element in an organization's defect prevention program. The fundamental concepts of defect prevention will be presented as well as the role of the SQA professional. Student will be provided an understanding of their role in the development of project documents, preparation of SQA plans, how to effectively perform and use the results from reviews and audits, and employing best practices to improve the development environment. (Course presented as part of Prince George's Community College Computer Information Systems program, sample material provided in this proposal)

### Key Topics:

- Software quality science theory and practice
- Software processes – including software development life-cycles, process models, maturity models, and defeat prevention
- Software metrics, measurement, and analytical methods
- Software inspection, testing, verification, and validation
- Software configuration management and control
- Software quality management including planning, and tracking of quality-related data
- Software audit methodology and planning
- Software quality practices and standards (including ISO standards)

### Who Should Attend:

This course is intended for those interested in developing and using/reusing quality software. Understanding or familiarity with computer code is not a prerequisite of this course. Software practitioners will gain an understanding of their role in the software quality assurance (SQA) discipline. Individuals from within quality assurance organizations/departments will become familiar with methods used for assessing the quality of software and how software quality assurance programs operate. Managers of projects involving software will gain a better understanding of the interface between the development or use/reuse of software and the SQA function.