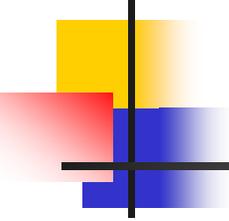


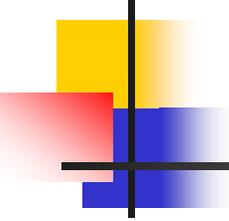
Teaching Quality Assurance in the Computer Science Curriculum

Patricia Ensworth
City University of New York
CUNY Institute for Software Design and Development
CS Council Meeting
November 10, 2006



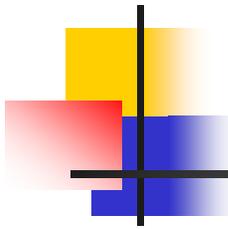
Quality Assurance roles

- Testing
 - Test technician
 - Test analyst
 - Test engineer
- Quality Control
 - Test manager
- Quality Assurance
 - QA manager



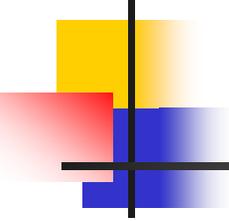
Testing activities

- Test execution
- Test design
- Test development
- Test automation
- Defect reporting
- Defect tracking



Quality Control activities

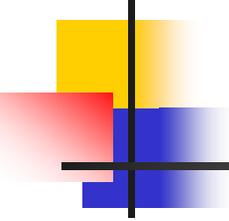
- Project management
- Resource allocation
- Change control
- Test tool management
- Test environment coordination
- Systems analysis
- Requirements analysis



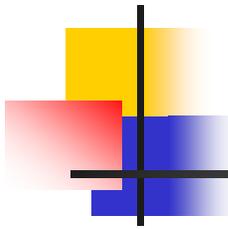
Quality Assurance activities

- Software engineering
- Social science research methods
- Cross-cultural communication
- Risk analysis
- Statistics
- Organizational behavior
- Supplier management
- Contract governance

Bodies of Knowledge and Certifications

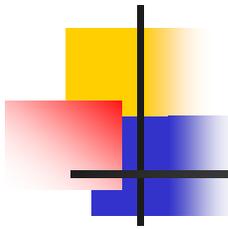


- ISTQB
- BCS ISEB
- ASQ CSQE
- PMI PMP
- SEI CMMI
- ...etc.



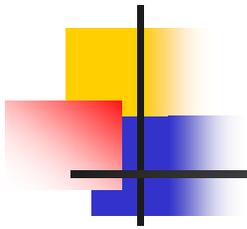
Proposed academic programs

- Certificate in Testing
- Courses in testing and quality control for CS software engineering undergraduate majors
- Interdisciplinary specialization in quality assurance with business and anthropology/sociology departments for CS graduate students



Importance to Industry

- Resources: 30-60% of IT projects
- Recruitment: staffing difficulties
- Training: costs and learning curve
- Competitiveness: US disadvantage



- Questions and discussion