

# Ross Collard's Fundamentals of Software Testing

## **Duration**

2 days

## **Instructor**

Roland Stens

## **Class Limit**

20 students

## **Prerequisite**

None

## **Price**

On-site

Please contact SPC  
for pricing (contact  
information on page 2)

Public Training

\$1,095 (2 days)

\*Discount available for  
early registration

## **Materials Provided**

- Student manual containing the course slides
- Student handouts with class exercises

Software testing has seen a phenomenal growth in importance in recent years, and for good reason. Testing is done to find information, and critical decisions about the project are made based on testing results. Yet given the strategic importance of software testing, many IT professionals still don't have an adequate understanding of the core concepts and technicalities of the subject and conduct testing in a disorganized, incomplete, and costly manner. Software testing is simply too important to not know how to do it right.

Ross Collard's Fundamentals of Software Testing provides the critical knowledge for successful software testing. This two-day seminar focuses on creating testing practices which are logical, organized, effective and repeatable, and which provide a reasonable degree of assurance that the test results are relevant and trustworthy.

This detailed, intensive workshop will enable attendees to understand the core concepts and principles of quality testing; how to effectively derive test cases; comprehend test planning, execution, results and follow-up processes; define major unit and integration test techniques; understand the user's role in testing; major system and acceptance test techniques; recognize critical factors that influence the success or failure of system projects; how to test modifications to existing systems; how to review regression testing; and, techniques to build teamwork and minimize conflict.

At the end of this seminar, participants will be able to:

- Design effective and reliable test cases
- Develop workable test plans
- Organize, manage & review the effectiveness of test efforts
- Evaluate test results
- Write effective problem reports to get problems solved
- Manage the test environment
- Work cooperatively with involved stakeholders to deliver quality systems in a timely manner

## **Intended Audience**

This course is ideal for systems testers and quality assurance professionals, systems analysts and designers, software engineers, project leaders, and users who are involved in systems testing.

TRAINING

# Ross Collard's Fundamentals of Software Testing

## Instructor

Roland Stens is an independent consultant based in Vancouver who specializes in QA and testing, particularly performance and robustness testing. His extensive background in system analysis, programming, database and network management, testing along with project/test management enables him to relate to all the issues at play during the software development lifecycle. Roland is one of North America's leading instructors for Ross Collard's testing workshops.

Ross Collard is president of Collard & Company, and specializes in software testing and quality assurance. His consulting assignments have included strategic planning for technology, managing large software development projects, and development of software engineering practices. His clients have included Amazon.com, American Express, Boeing, General Electric, Hewlett Packard, IBM and NASA. Ross has an MS in Computer Science from the California Institute of Technology and an MBA from Stanford University.

---

For more information on this or other SPC Springboard courses, please visit [www.spcspringboard.com](http://www.spcspringboard.com) or e-mail SPC at [info@spc.ca](mailto:info@spc.ca)

Software Productivity Center Inc.  
Suite 460 - 1122 Mainland Street  
Vancouver, BC V6B 5L1

Vancouver: 604.662.8181 Toll Free: 1.877.548.1948

Fax: 604.689.0141

---

## Outline

### Quality Concepts & Principles

- Definition of testing & quality
- Testing vs. Quality Assurance
- Practical limitations of testing
- Risk vs. economics

### Identifying Test Cases

- Test case design & techniques
- Functional analysis
- Equivalence
- Path analysis
- Input-based test techniques

### Test planning

- The importance of test planning
- Test planning vs. test case design
- Test plan template

### Test Execution & Management

- Major issues
- Criteria for test starting/completion
- Problem reporting and follow-up
- Managing the test environment

### Unit & Integration Testing

- Unit test characteristics
- Definition of integration testing
- Integration test success factors

### System & Acceptance Testing

- System & acceptance tests
- Users' roles in testing
- Usability testing
- Release management

### Defect Prevention

- Functional specification defects
- System design defects
- Testable designs
- Programming defects
- Root cause analysis

### Testing Modifications

- The four levels of defense after a change
- Localized change testing
- Regression checklists
- Re-test coverage guidelines

### Organization & People Issues

- Gaining commitment and support
- Speeding the delivery process
- Resolving conflict amongst groups
- Integrated vs. independent testing



TRAINING

