



**International Institute for Software Testing**  
*Promoting Disciplined Software Testing Practices*

# **Certified Software Test Professional (CSTP)**

*An education-based certification*

*Updated January 10, 2003*

## **Why Do We Need to Certify Software Test Professionals?**

The demand for software test professionals is growing at such a high rate that software organizations are unable to perform adequate testing of software systems that control different aspects of our lives. Many software organizations are attempting to close the gap as quickly as possible by growing their own test professionals. In spite of the increasing demand, there is no one educational institution that teaches the software testing as a discipline. The purpose of the certification program is to teach individuals from different disciplines sound and effective testing techniques and methods and to certify them as Software Testing Professionals.

### **Education is the Only Way to Establish Testing as a Discipline**

One of the most effective ways to establish a profession is education. Yes, education in all areas of study that can serve the profession. We need to establish a course of study that must be mastered by everyone who is practicing testing as a profession. The Certification of Software Test Professionals issued by the International Institute for Software Testing is the only education-based certification of software testers. Education is the only way to establish testing as a discipline and change the perception that it is an ad hoc activity that requires minimal training.

### **Objectives of Certification**

- Help individuals develop their software testing skills through formal education
- Establish a common skill set for software testing professionals according to a well-defined Body of Knowledge
- Create a pool of qualified software test professionals
- Prepare candidates for a wider range of software testing assignments
- Complement company in-house and on-the-job training programs
- Provide professional recognition and career enhancement

### **Who Should Pursue Certification?**

- Anyone new to the testing area
- People with a management or leadership role in testing
- Anyone who wishes to advance his/her professional standing in testing
- Auditors, Inspectors, and others who must evaluate the work product of the testing process

### **Certification Requirements**

Two requirements must be satisfied before the CSTP certification can be granted. These are:

1. Formal Education requirement
2. Job experience requirement

Upon satisfying these two requirements, a candidate shall submit an application to the IIST Chairperson for the certification to be granted. Application forms, which detail required enclosures, can be obtained by calling the IIST office. The application must also be accompanied by payment of the \$120.00 non-refundable graduation fee.

### **The Formal Education Requirement**

Candidates must complete a course of study consisting of at least one day in each of seven areas of the Body of knowledge listed below. A minimum of 10 days of education is required to complete the education requirement. The formal education requirement of the certification was designed to provide some flexibility for candidates in designing their own courses of study.

Candidates may select any of the courses offered by IIST that are marked as (CSTP) However, the course of study must cover all seven areas below. IIST will publish, for each course or tutorial, which areas it covers. Candidates are required to complete a written exam for each course and pass with a level of performance no less than 80%. At this time, there is only one second chance to re-take the exam. The time limit on completing all ten days of training is 5 years.

Non-IIST delivered courses may be considered for a maximum of two days towards the certification upon approval of IIST's chairperson. Candidates must submit evidence of successful completion from a recognized training institution along with detailed course material for evaluation and a certificate of completion. Materials must be accompanied by a fee of \$25.00 for each course to be evaluated.

### **The CSTP Body of Knowledge**

#### **1. Principles of Software Testing**

- Levels of Testing
- Testing client/server applications
- Testing Internet and web applications
- Testing object-oriented applications
- Testing embedded systems
- The testing life cycle

#### **2. Test Design**

- Code-based test case design techniques
- Requirement-based test case design techniques
- Test design specification

#### **3. Managing the Testing Process**

- Planning
- Scheduling
- Reporting
- Resources
- Risk Management
- Measuring and improving the test process

#### **4. Test Executions and Defect Tracking**

- Test scripting
- Reporting

- Defect tracking

#### **5. Requirement Definitions, Refinement and Verification**

- Writing testable requirements
- Exploring requirements
- Refining requirements
- Defining requirements
- Requirement verification
- Requirement tractability

#### **6. Test Automation**

- Tool evaluation and selection
- Architectures
- Automation standards and guidelines
- Planning the test automation process
- Automation team roles

#### **7. Static Testing (Inspections, Reviews, and Walkthroughs)**

- Types of static testing
- The process of static testing
- Defect data analysis
- Improving the process

### **The Job Experience Requirement**

To satisfy this requirement, a candidate must demonstrate that he or she has been working in a software test related job for at least one year and have had the opportunity to apply the formal training to their job. This requirement shall be met by means of a letter of support signed by the candidate's supervisor describing the candidate's specific role and responsibilities over a period of one year or more.

### **CSTP Re-certification**

#### **Rationale**

Based on the objectives of the CSTP Certification and in response to the demands imposed on test professionals to handle a wide range of responsibilities using different development environments and technologies, re-certification through continuous education has become necessary. This necessity has also been confirmed by CSTP graduates, who continuously inquired about a mechanism by which they can further develop skills in more advanced and specialized areas of software testing. In response to this need, the IIST Advisory Board has approved the requirements for re-certification as outlined below.

## Requirements

CSTP Certification will expire 3 years after it was granted. As a result, all CSTPs must complete the re-certification requirements before that time. CSTPs who were granted their first certification on or before December of 2002 will have until December of 2005 to be re-certified.

### Educational Requirements

An applicant for the re-certification shall complete a total of 10 educational units as described in the table below. Considering category **A** the highest category and category **C** the lowest category, an applicant must complete 4 units from category **A**, 2 units from category **B** or higher, and 4 units from category **C** or higher. For example, an applicant may fulfill all 10 units from Categories **A** and **B**, so long as at least 4 units are from Category **A**. Activities that qualify for each of the categories are described below. In order to count towards re-certification units, activities must be performed during the re-certification period. Activities performed before the first certification will not count towards re-certification. Evaluation of all activities will be at the discretion of IIST Chairman. None of the courses need to be delivered by IIST.

### Experience Requirements

An applicant shall provide evidence that he or she has continued performing job responsibilities in software testing or related areas. This requirement may be satisfied through a letter from the applicant's manager describing the specific activities performed over the specified period of time.

## Application

An applicant for re-certification shall submit an application to the Chairman of IIST accompanied by evidence of completing both the educational and experience requirements and \$180 processing fee no later than 60 days before the date the certification expires. Please contact IIST at (763)546-0072 or email [iist@softdim.com](mailto:iist@softdim.com) to obtain application forms.

Category A: Minimum 4 units and up to 10 units	Category B: Maximum 2 units with no minimum	Category C: Maximum 4 units with no minimum
<ul style="list-style-type: none"><li>Classroom courses with written exams.</li><li>Course topics are up to the applicant's choice, but must be in software testing or software engineering.</li><li>Each day counts as one unit.</li><li>College level courses on software testing or quality topics taken for credits will count as one unit for each one quarter or semester credit hour.</li><li>Applicants must submit evidence of successful completion of the course and passing the exam.</li></ul>	<ul style="list-style-type: none"><li>Classroom courses with no exam required.</li><li>Course topics are up to the applicant's choice, but must be in software testing or software engineering.</li><li>Each day counts as one unit.</li><li>Applicants must submit evidence of successful completion of the course</li></ul>	<p>Professional development activities that may fall into one of the following activates:</p> <ul style="list-style-type: none"><li>Presentations at professional conferences; each presentation counts for 2 units</li><li>Publications in professional journal, magazines, or electronic forums; each publication counts for 2 units</li><li>Attending conferences; each day counts as ½ unit</li><li>Web-based courses requiring an exam; each course regardless of length counts as ½ unit</li></ul>